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**Concerto for Orchestra**

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**Concerto for Orchestra**

**by**

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*To Raquel Coutinho, my fiancée*

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## Concerto for Orchestra

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*Concerto for orchestra* is a twenty-minute work for large orchestra. It was conceived from my personal interest in creating a musical narrative that could create different moods, colors, contrast, agreement, tension, and resolution. I had a major influence from Ligeti's *Double Concerto* regarding pitch, mood and form organization. I used his technique of interval signal to differentiate different sections of a movement as well as chromatic balance—the alternation of diatonic scales related chromatically. I also had influences from Mahler, Debussy, Nancarrow, and from my own work. The narrative of my *Concerto* is based on Ligeti's notion of states, events and transformations. My *Concerto* presents states that are transformed into new states. The piece is divided in four movements: *Lights*, *Convergences*, *Lights II*, *Convergences II*. The *Lights* movements favor delicate texture, based on a major melodic line and a subtle accompaniment. They also give prominence to solo sections. *Convergences* favors the idea of dialogue, multitudinousness, contrast, and dense textures. *Convergences II* emphasizes the *tutti* versus solo and ritornello form from Baroque concertos.

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## 1. Influences, motivations and concept

The *Concerto for Orchestra* was written over a span of almost a year, from the spring of 2010 to 2011. It is scored for a large orchestra. With a time frame of about 20 minutes, it is divided into four movements, entitled as: *Lights*, *Convergences*, *Lights II*, *Convergences II*.

I had some influences and motivations from other composers' work prior and during the composition of my own concerto. In this chapter, I will present the influences and motivations that had a major impact on the concerto as a whole. The following chapters will be dedicated to providing an understanding of those influences in the local context of each movement. In addition to that, I will also present some specific influences for each movement.

### 1.1 Ligeti's influence

An article by Ligeti had a tremendous influence on my work. In his article "*States, events and transformations*", Ligeti comments about his compositional process in general, and how it is articulated in his work *Apparitions*. He mentions a dream he had in his early childhood in which he saw himself unable to reach his bed because the whole room was filled with a web. Some small creatures, which were trying to fly to a candle, were caught on that web. Eventually, while trying to free themselves, they changed the web in an irreversible way<sup>1</sup>.

In the analysis, the composer affirms that in his work *Apparitions*, "the sonic structures recall the network of the dream, and the course of the form as a whole corresponds to the

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<sup>1</sup> Gyorgy Ligeti, "States, Events and Transformations," *Perspectives of New Music* 31, no.1 (1993): 164-165.



process of transformation to which the web was subjected”<sup>2</sup>. Thus the dream relations serve to generate a type of narrative based on states, events and transformations (SET), which actively shapes the musical form:

The states are broken up by suddenly emerging events and are transformed under their influence; and vice-versa: the altered states also have a certain effect upon the type of events, for these must be of ever new kinds of character, in order to be able further to transform the transformed states. In this way arises an unceasing development: the formerly existing states and events reciprocally excludes their occurrences, and thus are irretrievable. (LIGETI 1993, 167-168)

This philosophical attitude to music is also related to my own perception of music and has deeply shaped my musical conception for my *Concerto*. I decided to organize this piece, both in the local detail and in the overall, with the assumption of formulating a state that gradually is transformed to generate a new one. To me, each state is a living creature, with its own mood, personality and vocabulary. That has helped me to sense and shape the overall form of the work. Another approach from the SET concept is the idea of a constant transformation that leads to new states. It does not mean, however, that I avoided any repetition. It is true that the *Concerto* presents a few repetitions, but they are not exact copies of a previous statement; they are, however, a product of the interaction of musical ideas. When repetitions are used, they are transformed by the local events, and by the local mood of the section.

Another musical concept Ligeti uses that I tried to engage in my own compositional process, is the relation between the artist, his material, and the world. The composer associates, for example, “sounds with color, form, and texture; and form, color, and material quality with every acoustic sensation”<sup>3</sup>. Even abstract concepts have their place.

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<sup>2</sup> Ibid., 165.

<sup>3</sup> Ibid.

For Ligeti, “‘time’ is foggy white, flowing slowly and uninterruptedly from left to right”<sup>4</sup>. What I was looking for in my piece was to be aware of my sensations regarding my chosen musical materials. When planning each movement, I improvised vaguely how a specific material would evolve over time and what would be its narrative possibilities. The process is almost like carving: giving sound a form, an expression, a meaning. Nevertheless, it does not suggest that I subordinated pitch organization to this intuitive process only. Both processes came together. One led to the other and vice-versa. At other moments, to understand what came intuitively, I worked out the structural implications of the materials I wrote. That helped decide other possibilities to vary them. I wanted the *Concerto* to be cohesive, with a natural evolution of its materials.

Schoenberg describes a similar process during the composition of his *Chamber Symphony*, when themes were created in a stream, and their relations were figured out some time later, in his case twenty years:

After I had completed the work I worried very much about the apparent absence of any relationship between the two themes [Figure 1 – themes *a* and *b*]. Directed only by my sense of form and the stream of ideas, I had not asked such questions while composing; but, as usual with me, doubts arouse as soon as I had finished. They went so far that I had already raised the sword for the kill, taken the red pencil of the censor to cross out the theme *b*. Fortunately, I stood by my inspiration and ignored these mental tortures. About twenty years later I saw the true relationship (SCHOENBERG, 1979, 222-223).

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<sup>4</sup> Ibid.

Kammersymphonie, Op. 9, E major

a)

b)

c)

d)

e)

f)

Inversion

Figure 1. Schoenberg, *Chamber Symphony*, Op. 9, E major<sup>5</sup>. Structural relation of themes a) and b). C) displays the main notes for theme a) whereas d) shows the main notes for theme b). D) and F) show that the themes a) and b) are related by inversion.

As it happened to Ligeti, other composers also explored the relationship between sound and color. Messiaen, for example, correlated chords to colors. When teaching Debussy's opera *Pelleas et Melisande*, Messiaen<sup>6</sup> refers to two chords, one as being "warmer" and

<sup>5</sup> Arnold Schoenberg, *Style and Idea*, ed. Leonard Stein, trans. Leo Black (New York: St Martin's Press, 1975), 222.

<sup>6</sup> Olivier Messiaen, "Messiaen on Debussy and color," youtube; available from. < <http://www.youtube.com/watch?v=GSWatsiBErU&feature=related> >; Internet; accessed 20 February 2011.

the other as “cooler.” He defines the first chord as “grey-violet” and the other one as a sort of “orange, but an orange with touches of blue”<sup>7</sup>.

I do not have such an exact correlation of chords and colors, but what guided me, to some extent, was a similar type of relation. I saw myself experiencing my musical material as “bright,” “dark,” “tense,” “calm,” “melancholic,” “happy,” “agitated,” etc. More information will be given later in the analysis of each movement.

Another major influence in conceiving my *Concerto* was the first movement of Ligeti’s *Double Concerto*. I was looking for a different approach to pitch organization from what I had written previously and I was very moved by the sonority of that work. For one of my comprehensive exams, I did an analysis of Ligeti’s *Double Concerto*, taking into account the SET perspective. This analysis was very important to the compositional approaches I chose for my *Concerto*. It made me understand how Ligeti was able to create such a harmonic language, capable of clearly outlining sections, regions, and creating a sense of continuation through the relation of diatonic and chromatic materials. Basically, the composer presents a state of diatonic material that is gradually transformed by chromatic events, which originate a new state. With this technique, he was not only able to outline forms and sections, but also to create a sense of building tension and resolution, with no reference to the common harmonic language procedure of I-V-I. This technique was extensively used *Lights* and *Lights II*.

I had, as well, influences from Debussy and Mahler, which came intuitively, almost unconsciously. Both *Lights* movements reveal romantic-like melodies, sometimes similar to Mahler, while two passages from *Lights* recall Debussy’s *La Mer*.

For the *Convergences* movements (*Convergences* and *Convergences II*) I was strongly influenced by Ligeti’s *Piano Concerto* and Nancarrow’s *Study no. 5, for Player Piano*.

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<sup>7</sup> Ibid.

What struck me in both works was the presence of different living characters, represented by a superimposition of themes.

So far, I have presented the major influences I had for my *Concerto*. There are other influences that have not been mentioned because they are specific to each movement. These will be discussed separately in the following chapters. I will now discuss my conceptualization of the work.

## 1.2 Concept

One of the purposes of writing this music was to attempt a musical language capable of expressing different moods, characters, contrast, *agreement*, tension, and resolution. Through the study of Ligeti's *Double Concerto*, I was able to find a harmonic language that I felt capable of creating these moods. Moreover, it also gave me some textural ideas that would serve the same purpose.

The *Double Concerto*'s harmonic language together with SET formed a tool that I used to evoke different "lights." Each is represented through specific harmonic sonority and texture. With that in mind, I structured my *Concerto* in four movements: *Lights*, *Convergences*, *Lights II*, *Convergences II*. They form two groups and, as the title suggests, *Lights II* is a variation of *Lights*, likewise *Convergences II* is a variation of *Convergences*.

Furthermore, the idea of concerto carries in itself the notion of contrast, of bringing together different forces. Writing such a genre would be a good place to advance my own language to be able to express that notion.

However, the idea of contrast, dispute, and debate is only one of the meanings of the word *concertare*, from Latin. It can also mean “to work together with someone”<sup>8</sup>. This concept is seen in my work on a philosophical plane. Themes, sections, movements interact, and contrast, influence each other and are displayed in time so as to work together in a meaningful way. In addition, each movement attempts to convey meanings but not in a programmatic way:

*Lights* is a very delicate and soft movement. It starts with an English horn solo. The whole movement is based on a single melody, fragments of which are dispersed throughout the entire orchestra as accompaniment. The accompaniments are always subtle, minimal, functioning only to give depth to the main melody. The piece suggests “beginning” and “opening” by starting with only one melodic line. Because it is entirely based on single melodic lines, it also evokes the idea of aloneness and unity.

*Convergences*, however, is characterized by the superimposition of contrasting materials. This movement evokes the idea of friendship and of multitudinousness. It presents many materials that, towards the end, converge into a varied repetition of the main theme, played by the whole orchestra.

*Lights II* resembles *Lights*. It brings back the idea of unity, but this time contrast is not as emphasized. *Lights II* depicts contemplation: its opening is marked by the repetition of the same chord—for each repetition, the lower notes are kept, whereas the high notes are changed. This chord also frames the movement when it returns at its end.

*Convergences II* brings the idea of fragmentation, so as to dissipate the energy that has been built up to this point. Its narrative is not based on a superimposition of fragments, but on a succession of fragments, of block structures. It has no end per se; it just stops.

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<sup>8</sup> Paul Griffiths, “Concerto,” in *Grove music online*; available from [http://www.oxfordmusiconline.com.ezproxy.lib.utexas.edu/subscriber/article/grove/music/40737?q=concerto&search=quick&pos=1&\\_start=1#firsthit](http://www.oxfordmusiconline.com.ezproxy.lib.utexas.edu/subscriber/article/grove/music/40737?q=concerto&search=quick&pos=1&_start=1#firsthit); Internet, accessed 21 February 2011.

Thus, the main theme is interrupted when recapitulated. This type of ending suggests that there is no emphatic conclusion.

Throughout music history, composers have associated pitches/keys with specific moods, colors and meanings. In Stravinsky's *Symphony of Psalms*, for example, E minor is associated with prayer, C with god, and E $\flat$  with man, according to Mellers<sup>9</sup>. There are many other examples of such relations, but to develop this topic is beyond the scope of this dissertation.

In the context of the *Concerto*, there is a constant polar relation between flat keys and sharp keys. All themes inherit that relation to some extent, which will be demonstrated in the following chapters. In general, materials on flat scales are usually associated with *dark* passages, whereas materials on sharp scales are associated with *bright* passages.

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<sup>9</sup> Wilfrid Mellers, "Symphony of Psalms," *Tempo*. 97 (1971): 19.

## 2. *Lights*

Before starting the discussion of this movement, I will present a brief analysis of the first movement of Ligeti's *Double Concerto* regarding only the aspects that were relevant and incorporated into the musical language of *Lights*.

### 2.1 Interval signal

Ligeti's music from the late 50s and early 60s—*Apparitions* (1959), *Atmosphères* (1961), *Volumina* (1962)—was heavily based on textural and cluster sonority. Because of the extensive use of minor seconds even this interval “disappeared in the harmonic sense”<sup>10</sup>. Later on, intervals were used in a less chromatic way, giving space for the appearance of specific intervals, placed at arrival moments. *Lontano* (1967), for example, opens up with one single note, and at letter H a single tritone B $\flat$ – E is heard. Examples like these also appear in *Melodien* (1971).

The use of specific intervals that occur only once and at arrival moments, referred to as interval signals, usually are employed to greater emphasize and differentiate sections and their subparts. The interval signal became very prominent in the harmonic structure for it was opposed to dense chromatic passages that favored minor and major seconds. It was also able to provide a work with a local key equivalent. This was one of Ligeti's contributions to the twentieth century harmonic language. The opening chord (Figure 2) of the *Double Concerto* is actually its first interval signal. It is expanded with the addition of other notes, which are chromatically related. This creates tension that resolves on a tritone, the second interval signal. At this place the second theme of the work begins.

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<sup>10</sup> Josef Häusler, “Zwei Interviews mit György Ligeti,” trans. Sarah E. Soulsby in *Ligeti in Conversation* (London: Eulenberg, 1983), 94.



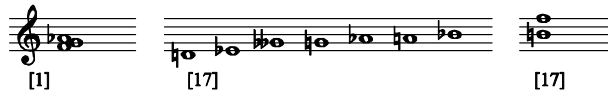


Figure 2. Harmonic transformation of the first movement of Ligeti's *Double Concerto*, mm. 1-17.

Another influence I had from Ligeti was a balance in the use of diatonic and chromatic material. Although subsets of diatonic scales are used, a traditional harmonic sonority is avoided by the use of chromatic relations. The solo alto flute part in Figure 3 exemplifies such a relation. Its first three notes (F, E $\flat$ , C $\sharp$ ) are part of a flat diatonic scale (read C $\sharp$  as D $\flat$ ) and are balanced chromatically with the next three notes that are part of a sharp diatonic scale (C $\sharp$ , E, F $\sharp$ ). This feature is almost always a harmonic progression. At the same time the first three notes set the beginning harmonic center, the second three notes move away and bring contrast to the interval signal.

Figure 3. Gyorgy Ligeti, *Doppelkonzert*. (Mainz: Edition Shott, 1972), 1, mm. 1-4. Diatonic and chromatic relation of the alto flute solo melody. Notes are organized as fragments of a flat and diatonic scales.

I was also very much influenced by the opening texture of the *Double Concerto*. The accompaniment (played by flutes, clarinets and cellos) is of a very subtle nature. It creates a very inactive and static background, and resonates the notes of the soloist.

## 2.2 Analysis of *Lights*

*Lights* is organized in a sonata-form. The exposition section [1-49] presents three themes, which have a specific texture, interval signal, timbre, and character. The first theme [1-19] depicts the character of the tempo marking indication: “Nostalgic, delicate and colorful”. Nostalgia means here “a wistful desire to return in thought or in fact to a former time in one’s life”<sup>11</sup>. The first theme is played by the English horn, because it has a very distinct timbre that separates itself from the orchestra, which plays only sustained and long notes. The timbre relation between English horn and orchestra, together with a low level of activity in the accompaniment, suggest nostalgia, isolation, and a desire to move. In addition to that, the range is narrow, beginning in the middle register, gradually moving higher to a very high register, at which point the second theme begins [20].

The flutes [1] set the harmonic sonority of the first theme when they present the notes A $\flat$ , G, F [1], which are, indeed, the first interval signal (IS1). The English horn theme starts with the same notes of IS1 [2-4]. IS1 is flat in nature; it is a subset of a flat diatonic scale (F minor/D $\flat$  major)<sup>12</sup>. Its flat scale is associated with darkness and shadows. In this respect, the use of soft dynamics also contributes to that mood. The F minor/D $\flat$  major diatonic scale is opposed chromatically (D $\flat$ -D) to a D minor scale [7-9] in the English

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<sup>11</sup> *Dictionary.com*; available from < <http://dictionary.reference.com/browse/nostalgia>>; Internet; accessed 23 February 2011.

<sup>12</sup> It is less clear what the scale of [1-5] is, if either F minor or D $\flat$  major. The most important thing, is the fact that it is a flat scale that will shortly be opposed to a D minor scale.

horn part, much similar to the procedures used in the first theme of Ligeti's *Double Concerto*, explained in (Figure 3).

After that, another chromatic relation takes place [10-13] when D minor is briefly opposed to E $\flat$  major. These chromatic relations become prominent [14-19], and gain momentum when the English horn plays all the notes between E and A $\sharp$ . They create the most intense and dissonant moment of the work so far. Figure 4 demonstrates the harmonic progression of the first theme.

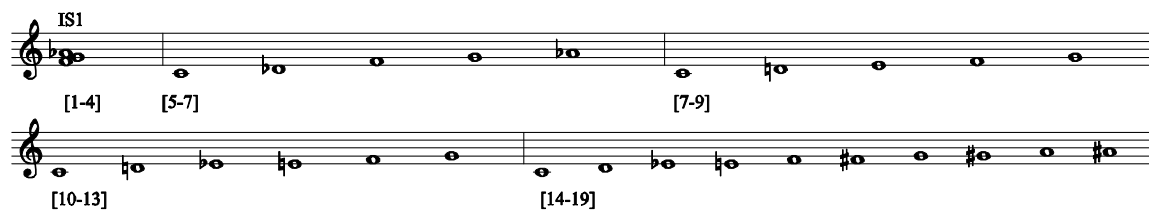


Figure 4. Harmonic progression of the first theme of *Lights*, [1-19].

Regarding rhythm, the orchestral accompaniment of the first theme has a very subtle entrance rhythm, mostly hidden in the sustained notes. Figure 5 reveals the rhythmic activity for [1-4]. Basically, the accompaniment sustains IS1 (A $\flat$ ,G,F) throughout the passage. However, at every new measure IS1 pitches are played again by a different instrument, and with a new entry rhythm and new melodic outline. The timbre of the accompaniment emphasizes the beginning and end of the English horn melody. It starts with flutes, shifts to clarinets, then bassoons, and then returns to flutes, in order to give this phrase a sense of ending through the use of the timbre.

Figure 5. Rhythm activity [1-6] of the accompaniment of the first theme. New entrances at each measure shift timbre and introduce new melodic outlines and entrance rhythm.

The IS1 not only establishes the flat diatonic scale sonority, but sets the initial state. Later, this state is confronted by other scales through chromatic relations—the events—which culminate in the chromatic scale E-A<sup>#</sup> [16-19]. A<sup>#</sup> [19] functions as a leading tone to B [20]. B is played in octaves and engenders the second interval signal (IS2). The octave was chosen here because of its open consonant nature that conveys the bright mood of this theme.

The second theme [20-35] represents the nostalgic time/place theme 1 was looking for. The second theme is bright, static, and tranquil. It takes place in the high register, when compared to theme 1. The celesta, piano, and glockenspiel contribute to this bright sonority as well when they mark the second theme's most important notes. The main instrument here is the flute (Figure 6), which plays the main melody. This main melody gives a “mysterious” quality to the second theme, as it does not reveal itself right away. It is played very slowly, almost like a *cantus firmus*. Because it is played so slowly, it is difficult to perceive what the real melody is. It would be much easier to pick it up if it were played four times faster. Because of this slow character, it needs to be repeated. The oboes and bassoons provide this repetition play the same melody again in a non-strict canon, where rhythm is totally free and pitch is slightly varied (Figure 6).

Figure 6. First measures [20-28] of the second theme of *Lights*: the flute plays the main melody, oboe and bassoons play a canon with variation. The melody of the clarinet is free.

The canon reaffirms the flute melody in an attempt to reveal it. Due to the fact that the canon is not strict, its variations bring interest and contrast to the texture; similar, in my perception at least, to the shape of the *Bellis perennis*, a type of daisy, shown in Figure 7. Although its leaves look symmetrical, and are displayed in a pattern, deviations are seen everywhere: some leaves are shorter than others, and there are gaps in between the leaves. These deviations catch the eye and become points of interest. In addition to the canon deviations, there is the clarinet countermelody [20-35], a variation to the theme that brings contrast.



Figure 7. *Bellis perennis*. Symmetrical pattern and deviations<sup>13</sup>

Another element that contributes to the static quality of the second theme is the harmony. It is rooted on a constant pedal on B, played by low strings. Its main melody is on a B dorian scale.

Because the second theme is static and presents no chromatic tension, it is followed by a short transition [36-41] that brings harmonic and rhythmic contrast. It is mostly played by cellos alone on the flat scale of C minor. This passage came intuitively, and is an influence of the

sonorities Debussy uses in *La Mer*.

The third theme [41-50] is the string's theme. It begins with the third interval signal (IS3), a perfect fourth that opens up to a C mixolydian scale. The third theme prolongs the flat harmonic sonority of the transition. Its main melody is played by the first violins. Cellos play in canon and the rest of the orchestra sustain important harmonic pitches. The texture of the third theme is derived from the second theme. However, the former has a bass line that, although it moves very slowly, adds a two voice texture that has never appeared in the piece before.

The exposition section presents three different themes: the English horn theme, the woodwinds theme, and the strings theme. Each one has its own harmonic sonority. The first theme combines flat and sharp scales; the second theme is on B dorian and the third on C mixolydian. Each one has a specific interval signal as well. The harmonic evolution of this section is summarized in Figure 8.

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<sup>13</sup> André Karwath, "Bellis perennis," Wikipedia; available from < [http://en.wikipedia.org/wiki/File:Bellis\\_perennis\\_white\\_%28aka%29.jpg](http://en.wikipedia.org/wiki/File:Bellis_perennis_white_%28aka%29.jpg) >; Internet, accessed 21 March 2011.

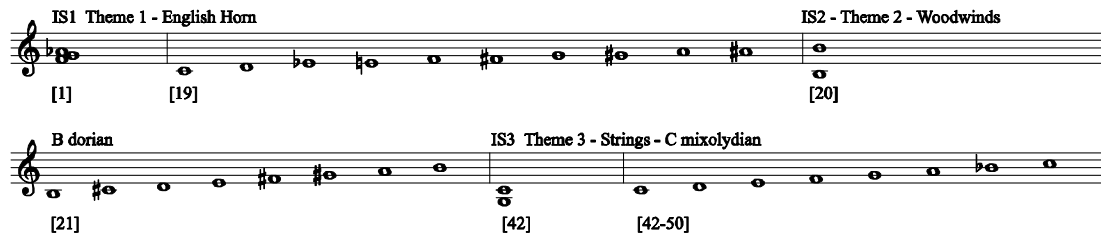


Figure 8. Harmonic evolution of the exposition section [1-50] of *Lights*.

The development section [50-85] builds up tension, and is characterized by short melodic lines. There is no soloist; instead the main melody is played each time by different instruments. The entire orchestra is used to create greater contrast to the previous section. There is an increase in harmonic tension that helps build up three culminating points that divide this section in three parts.

The first part [50-60] is characterized by melodies of one measure. They happen in the scale of A major, and are played each time by a different instrument, as Figure 9 shows.

Figure 9. *Lights*. Melodic lines and timbre variation of the first part of the development section [50-57].

The texture of the first theme is also used here: some notes of the main melody's first part are sustained, and help to create tension and density. The melody, as shown in Figure 8, has an ascendant quality, as well as the register, which moves from mid range to the high register, much like what occurred from the first to the second themes.

The first climax point [58-60] (Figure 10) is marked by the rhythmic activity and seven-note chord of the brass section. Its tension is more emphasized by the fact that its chord is a sum of the dark and bright moods, represented by two chords:  $A\flat 7M$ , which represents the dark mood and  $G7$ , which represents the bright mood. The first climax is also characterized by a melody of only two notes D-B, [58-60], a minor third apart, played by the oboes and flutes. The third interval signifies climatic moments, and it appears again in future climaxes. The minor third interval justifies its existence due to the fact that it is the same interval between the first note of the first and the second themes,  $A\flat$ -B. Poetically, the two notes of this climax point, D-B, represent a fusion of the first and the second themes.

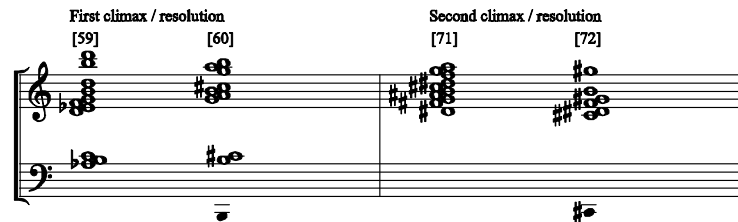


Figure 10. First and second climaxes points and their resolution, both from the second part of the development section.

The second part [64-73] is a variation of the first part. It inherits all the aforementioned characteristics of the first part: it is based on a single ascending melody and short phrases, whose most important notes are sustained by the orchestra. It leads to another climax point [71] that is resolved into another chord [72]. Figure 10 shows the harmonic progression for the second climax point and its resolution.



The third part [74-85] creates the most intense contrast of the piece, and presents the climax point of the work. This climax is followed by a longer resolution, compared to the other resolutions of part one and two, in order to dissipate all the tension that started at the beginning of the development section [50].

The climax point begins with four pitches (E,F $\sharp$ ,G $\sharp$ ,A) [74], as shown by Figure 11, and progresses to a nine-note chord [78] (E $\flat$ ,A,E,F $\sharp$ ,G $\sharp$ ,A,B,C,C $\sharp$ )—Figure 11, the most dense chord of this movement. Although it is dense, it gives priority to the notes E $\flat$ ,A, and their interval, a tritone, which are seen in the upper registers and alone at the bottom. At the same time, other notes are less emphasized (such as E, F), which are seen once, only in the high register. This tritone is resolved in an E major chord (Figure 12) [80-81], if considered as being (A-D $\sharp$ ).



Figure 11. Harmonic evolution of the third part of the development section, which leads to a nine-note chord with a prominent tritone E $\flat$ -A at the bottom [78], resolved in a E major chord [80-81].

The resolution to the climax point starts with the flutes, which play B-G $\sharp$  [79-80]. It is a very intense moment of the work, because it follows the climax. It marks the resolution and the end of all the tension built up in the development. B-G $\sharp$  is also, a minor third apart from each other, and reaffirms the presence of this interval as representative of the climaxes of the work.

The chord of E major was carefully chosen as a resolution chord, for it contains two notes, B-G# that are the first notes of the second and the first theme. E major would then be able to symbolize a fusion of those two themes, a combination of G#, which represents the flat—the dark (read G# as A♭), with B, which represents the sharp—the bright.

This resolution is followed by a small transition [82-85], based on the repetition of F#, played by different instruments at different times. This transition is reminiscent of the dominant pedal of the sonata form harmonic scheme, where its function was to prepare the music to return to its home key. Because there is no tonally functional harmonic scheme in *Lights*, only the equivalent of the pedal is maintained, not the dominant.

The recapitulation, the final section, is very short [86-100]. It seems that the resolution of the climax point [80-82] was so strong that there is no need for a long recapitulation. Because the music is not based on a tonal functional harmonic scheme, it is meaningless to recapitulate entire themes on the tonic, nor adjust their transitions. The recapitulation reaffirms only fragments of the first and second themes. Nevertheless, it adds a new dimension. It continues the resolution of the tension, created by the development section, carrying it to the very low register for the first time. This feature gives drama to the recapitulation and differentiates it from the rest of the piece.

The IS1 and melodic fragments from the first theme appear transposed to B♭, C, D♭ [86], and on the original notes A♭, G, F [88-89]. The last phrase of the second theme [32-35] is repeated at the recapitulation to give a sense of ending to the whole piece [91-100]. The recapitulation gradually dissipates all the energy of the piece, finally arriving at a very static and motionless note, a low B, played by the double bass alone.

The first and second themes are not differentiated in this section. They are combined into one theme. They both have the same register and texture. In that sense, the dark mood of the first theme is preserved even when the sharp scale of the second theme is played [90].

One last observation concerns the first and the last notes of the piece;  $A\flat$  and B are separated by a minor third, which confirms it as a crucial structural interval.

### 3. *Convergences*

#### 3.1 Motivations

If the purpose of *Lights* was to present the narrative of one melody at a time, *Convergences* stands in opposition. It represents the meeting point of various melodies, each with its own specific character. *Convergences* attempts to convey the idea of multitudinousness and friendship. It is a continuous stream of energy, ideas and density.

This music has been inspired by the work of Nancarrow, Ligeti and my own experience. When walking through the corridors of practice rooms I hear great music, which is the product of different music being played by several performers. If I stop at a room I may or may not recognize the music being played. Apart from that, however, is that I will definitely be able to focus my listening on one specific melody from the dense sonority produced by all the players together.

I recall an experience I had when watching a chamber recital rehearsal at Bates Recital Hall in the fall of 2009. The musicians came to the stage to rehearse the piece they were going to perform later that same day. After being seated, they had to wait, but because they already had their instruments, they could not wait in silence. Each one of them started to play something. Suddenly the room was filled with a burst of a very complex music, produced by the superimposition of the sound each player was making. The players were deeply concentrated on what they were practicing. Some were practicing tricky parts of the music to be performed while others were playing music from their repertoire.

At moments I would be able to pick out individual melodies from the dense music they were making. Some of them were very well known. The first violinist, for example was playing a passage from Beethoven's *Violin Concerto*. As a listener, I had an incredible experience by focusing my listening back and forth from the overall to the local sonority.

*Convergences* attempts to recreate this experience I had and always have when listening to musicians practicing.

I have a similar experience to that when listening to Ligeti's *Piano Concerto*, especially its first movement, *Vivace molto ritmico e preciso*. Figure 12 shows a passage from the first movement of this piece where there are three highly differentiated main ideas. The horn plays in a different pulse, for its long notes are never aligned with the pulse of the percussion and piano. The horn also presents a melody in a wide range that is unrelated to what the other two instruments play. In addition, the horn notes are played according to the tuning of the harmonic series. All these characteristics give a distinctive personality to the horn. The percussion gives emphasis on a periodic heart beat idea in 12/8. The piano part is already complex: it has two key signatures (white against black keys) and polyrhythm that mixes compound and simple meter.

Figure 12. Gyorgy Ligeti, *Concerto for Piano and Orchestra* (Mainz: Schott, 1986), I22-I23. Sumperimposition of three highly differentiated ideas that are played by three different instruments.

Handwritten musical score for three instruments: Cor., Perc., and PF. The score spans measures 82 to 84. The Cor. part is in E major and Eb major, featuring a 14th harmonic. The Perc. part includes a tambourine and a piccolo suspended, with a triangle and a bass drum. The PF part includes a piano and a bass drum. The score is marked with various dynamics and articulations.

Cor. (in E) (in Eb) 14. harmonic

Perc. (TAMB. PICC.)

PF. sempre cresc.

8 bassa

82 83 84

12 8

PIATTO PICCOLO SOSPESO

TRIANGOLO

fasc. vibrare

poco ped.

82) Sounds a bit lower. Do not correct.

(XX) with the snare drum stick.

(XXX) with the usual metal stick.

Figure 12 (continuation). Ibid., I23. Sumperimposition of three highly differentiated ideas that are played by three different instruments.

*Convergences* attempts to recreate my listening experience of musicians rehearsing, sometimes with similar approaches as the one explained in Figure 12. The second theme of *Convergences*, for example, is a dense texture of four different ideas. Figure 13 shows reduced score. On the first staff there is a melody of long notes that forms a periodic rhythm; it is on E mixolydian. On the second staff there is a rhythmic-melodic cell of one measure length that is repeated over and over. Although these two ideas have different character, they have periodicity in common. The third staff presents a “free” melody (inspired by the horn melody of Ligeti’s *Piano Concerto*—Figure 12) that has a wide range and is free from rhythmic patterns and a clear pulse. It is also played in triplets, which contributes to disassociating it from the pulse of the other ideas. The fourth staff

presents a non-periodic rhythmic idea that negates the pulse of the passage. Ideas presented on the third and fourth staff form a second group of ideas that are “free” due to the absence of periodicity. Each idea here evokes a specific character.

Figure 13: *Convergences*, [16-26]. Second theme is divided into four ideas (noted in each staff). Each idea evokes a specific character, and form together a complex texture that suggests musicians practicing.

Another influence comes from the music of Alban Berg. In some of his works, there are referential associations to masterpieces, to loved ones, and to friends. Gauldin proposes that there are four types of referential association in Berg’s *Vier Lieder*: specific key relations, acronyms, quotations, and parody<sup>14</sup>. All these associations are meant to express his feelings toward his wife Helene Nahowsky. His wife was associated with the key of D minor. In a letter to Helene, he referred to her as “my most glorious Symphony in D

<sup>14</sup>Robert Gauldin, “Reference and Association in the Vier Lieder, Op. 2, of Alban Berg,” *Music Theory Spectrum* 21, (Spring, 1999): 36-37.

minor”<sup>15</sup>. This is the key to the tonal center of the first song of Op.2. Berg also used in this same song the acronym Alban Berg and Helene to create A, B $\flat$ , B as an initial chromatic ascent [2-4]<sup>16</sup>.

In the case of my *Concerto, Lights* has general key relations: sharp keys represent brightness and flat keys represent darkness. In the second theme of *Convergences* (Figure 12-first staff), there is a specific referential relation. I spelled out my fiancée’s nickname, “mimi”, as a repetition of the pitch E (*mi*), for in Brazil we usually refer to notes by their names (do, re mi,..., si) not by letters. Furthermore, the entire second theme is referential to her. This theme is subtle, and delicate. Its key and scale of E (*mi*) mixolydian is doubly associated to her nickname too.

For the composition of *Convergences*, I had another influence that came from the first movement of my *String Quartet*, written in 2007. This piece is very rhythmically active due to a constant stream of ascending chromatic scales. The idea to compose the *String Quartet* entirely on chromatic scales came when I listened to Ligeti’s *Étude pour piano* no. 9, *Vertige*, which softly starts with a continuous stream of descending scales (Figure 14) that gradually delivers a melody.

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<sup>15</sup> Alban Berg, *Letters to his Wife*, ed. Bernard Grun (London: Faber and Faber, 1971), 1.

<sup>16</sup> Robert Gauldin, “Reference and Association in the Vier Lieder, Op. 2, of Alban Berg,” *Music Theory Spectrum* 21, (Spring, 1999): 37.





Figure 14. György Ligeti, “Vertige” in *Études pour piano, deuxième livre*, ed. (Mainz: Schott, 1998), p. 20. Descending chromatic scales delivering a melody.

Figure 15a shows the first theme of my *String Quartet*, played by the viola in the high register. One of my decisions to return to this work was the idea of utilizing a stream of chromatic scales as a constant motto to *Convergences*. However, I did not want to keep the same harmonic strategies I employed in the *String Quartet*. Its first movement is harmonically rooted on a pitch field of a wide range (Figure 15b). This pitch field was designed on the alternation of major and minor chords filled with tones and semitones. The result of such a disposition of intervals was to create a sonority neither diatonic nor too chromatic. Because the notes are fixed to the register they appear, the only possibility to evoke different harmonic sonorities was to not present all of them at the same time. The first theme, for example, suggests a C minor scale (Figure 15a), which has its sonority loosened when superimposed with the stream of chromatic scales.

5 *Vla must stand out until m. 32*

Vln. I *f*

Vln. II *f*

Vla. *mf* *f*

Vc. *f*

10 **A**

Figure 15a. First theme of my *String Quartet* based on a continuous stream of chromatic scales engendered according to the pitch field shown in Figure 15b.

C Gm D Am

2 1 1 2 1 1 2 1 2 1

E Bm F#

Figure 15b. Pitch field for my *String Quartet*.

The harmonic strategy for *Convergences* was to employ diatonic scales to orient a passage. Figure 16 provides an example of the first theme [1-15] in which the diatonic scale of A major/lydian defines the key. In between the duration of one melodic note to another, the space is filled with ascending chromatic scales that expand the diatonic world. The vertical harmonic sonority is the product of both the chromatic and the diatonic scales. Because of this technique, I was able to create a type of “refreshed tonality” where it is represented by its scales, but less with its harmonic functions. The chromatic scales come to engender tertian and non-tertian chords, and create different harmonic progressions. That is also enhanced by the melodic content of the first theme, which has chromatic balance (the same technique used in *Lights*). The A major scale is balanced with the A lydian to present the chromatic relation of D-D#. This type of relation is extensively used in all melodies.

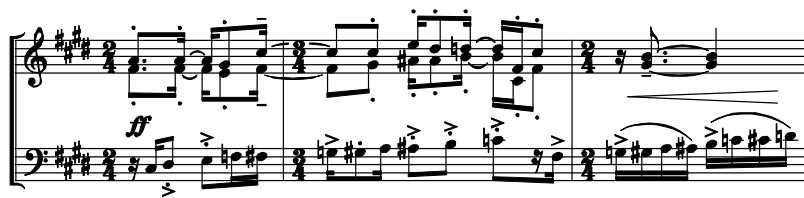


Figure 16. First theme of *Convergences*. Diatonic scale for the melodic notes and chromatic scale for the accompaniment, to create a “refreshed tonality.”

### 3.2 Analysis

The narrative of *Convergences* is one of a continuous flow towards a convergence point. Because this music presents many ideas (most of them variations) it is always in search of a point of rest, where all ideas dissolve into one structure played in *tutti*. The music starts with an orchestral *tutti* that plays the main theme; after that, it is followed by dense textures. The convergence point occurs at the end [161-168] where the orchestra, in *tutti*, plays the first theme for the second time.

The form of *Convergences* is based on sonata form (Figure 16) and the development section (C) is based on variation. The recapitulation is a retrograde of the exposition.

Exposition [1-45]	Variation [45-97]	Recapitulation / Variation [98-168]	Coda [168-180]
A B Codetta Begins on A scale	C(A1 A2 A3) Begins on A scale	D B1 E B2 F B3 A4 Begins on A scale	

Figure 17. Form of *Convergences*.

The exposition section presents two themes (A, B). Theme A [1-15] represents the idea of friendship. This is shaped by the fact that the orchestra begins to play theme A in *tutti*; and after that, it plays a dialogue between the high and low registers to suggest a conversation between two people (Figure 18).

Figure 18. *Convergences*- theme A (reduction) dialogue between melodies to suggest a conversation of two people.

The other two important motives (Figure 19- *a* and *b*) of theme A are built on a chromatic scale. Motive *b* contains repetitive notes that help to create a sense of harmonic progression. Motive *a* is a variation of *b* and both of them are used many times in the work when a reference to theme A is needed.

Motive a

Motive b

Horn in F 1,2

Horn in F 3,4

Trumpet in C 1

Trumpet in C 3

Trombone 1

Trombone 2

Trombone 3

Tuba

Figure 19: Motives *a* and *b* of theme A. Repetitive notes are added to the chromatic scale (motive *b*) in order to create a sense of harmonic progression.

Theme B [16-26] (Figure 13) was discussed previously. Although it presents a new idea, it shares motive *a* with theme A. This technique is extensively used in this movement, where each new subsection brings materials that were presented just before it. Thus creating a sense of continuity.

The codetta [27-45] is a restatement of themes A and B varied. The beginning of theme A is presented in D major/lydian. Its conversational characteristic is kept in the codetta too. One of the phrases of this conversation is the melody of the horns of theme B [16-20], which is repeated by bassoons [31-35].

The exposition section is closed by the traditional conclusive cadence (E<sup>7</sup>-A) [42-45] of the common practice period. However, this cadence is slightly disturbed by the D<sup>#</sup> that precedes it [43].

The development section (C) [45-97] is divided into three parts (A1, A2, A3); and each one presents three different variations of theme A. Variation A1 [45-69] was motivated by Ligeti's *Piano Concerto*, and because of this, it gives the soloist role to the piano, playing theme A in its very low register (Figure 20).

The image shows two staves of music. The top staff, labeled 'Theme A', is in treble clef with a key signature of two sharps (F# and C#) and a 4/4 time signature. It contains a single melodic line with several measures of music. The bottom staff, labeled 'Variation' and 'Pno.', is in bass clef with the same key signature and time signature. It contains a more complex, rhythmic piano accompaniment. Dashed lines connect specific notes in the variation to their corresponding notes in the original theme, illustrating how the theme is adapted for the piano in this variation.

Figure 20. Piano part only of variation A1 [45-52] of theme A [1-3].

Because variation A1 comes after an orchestral *tutti*, it brings contrast by presenting a texture of three layers: woodwinds and brass, percussion, piano, and strings. Due to the fact that the variation presents new material, it is organized in two varied repetitions of part 1 (Figure 21), played by the strings. The explanation of such non-strict repetition is, again, my interest in natural structures, such as the aforementioned one in Figure 7 (page 15).



Figure 21. Variation A1 [47-69]: Part 1 and its varied repetitions (part 2, and part3).

A1 begins in A major/Lydian [45] and ends on the tritone F $\sharp$ -C [69], which is responsible for preparing the key of the next variation, A2, in C major/minor.

Like A1, variation A2 [70-82] has three parts. A2 presents a closer variation to the structure of theme A, and is based on a dialogue of high and low registers (Figure 22).



Figure 22. Dialogue of the high and low registers of variation A2 [70-83].

The melody of the first staff of Figure 22 is one of many examples in this work where the C major scale is expanded to form a mixture of C major and C minor. This helps to give the work a tonal sonority, but at the same time, additional complexity. The leading tone B is chromatically balanced with B $\flat$ , latter E with E $\flat$ . The second staff presents another melody in the dominant of C. The actual chord B, D, F, A is there, but it is soon chromatically balanced with F $\sharp$ , D $\sharp$ . The third staff presents the last melody that leads to variation A3 [83-97].

Variation A3 is deeply inspired by the first movement of Ligeti's *Piano Concerto*, almost in a referential way. In this variation the piano returns as a soloist, and presents theme A varied (Figure 23).

Theme A [1-3]

Variation A3 [83-87]

Figure 23. Variation A3 of theme A.

Variation A3 finishes section C with solo chromatic ascending scales [88-97]. The intention here was to create a comic and unrelated anecdotal passage to this movement<sup>17</sup>. I believe the comic quality comes from the presence of such a neutral element, the chromatic scale, from the very use of a low density texture, and lastly from the emphasis upon and its repetition.

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<sup>17</sup> When the disklavier version of *Convergences* was first performed in my Composition DMA Recital, I was happy to see the audience laughing at the end of variation A3.



The recapitulation section [122-168] is organized to greater emphasize the convergence point of the work [161-168], when theme A reappears in an almost identical way to the exposition section. Instead of recapitulating theme A right away, the recapitulation section introduces a hybrid theme (D) [98-121], a mixture of themes A and B first, which is followed by theme B, and at last by theme A. Hence, a retrograde form of the exposition.

Theme D [98-121] (Figure 24) inherits the melodic dialogue procedure of theme A, which occurs in the middle and high registers. Theme D combines motive *b* of theme A (played by flutes and oboes [98-100]), and a retrograde variation of the horn melody of theme B [16-20] played by the clarinets [98-100]. In addition to that the bass presents a chromatic scale motive [98-100], which serves as an ostinato bass to theme D. The repetitive bass has the same length of each melody of the melodic dialogue. Because of this, it helps to frame the beginning and end of each melody. Theme D brings back the A tonal center, represented by a combination of A major/minor.

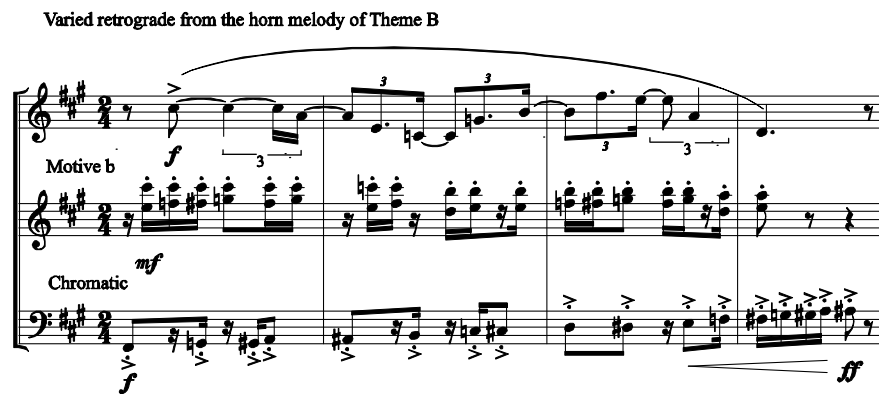


Figure 24. Theme D is a combination of elements of themes A and B

Theme B is recapitulated just a little bit varied (theme B1-[122-131]), Figure 25. One of the major differences of this variation is the introduction of a new mood for theme B. This mood is created by the addition of a new bass line (played by the contrabassoon), and a new countermelody (played by the clarinet). Although the time signature is marked

as 2/4, the only actual rhythm that fits that is theme B1's main melody (played by the flute/piccolo – first staff, Figure 25). The countermelody's rhythm is in 3/8 (second staff, Figure 25), whereas the bass line's rhythm is in 6/8 (third staff, Figure 24). However, for performance reasons, all the rhythms are notated in 2/4.

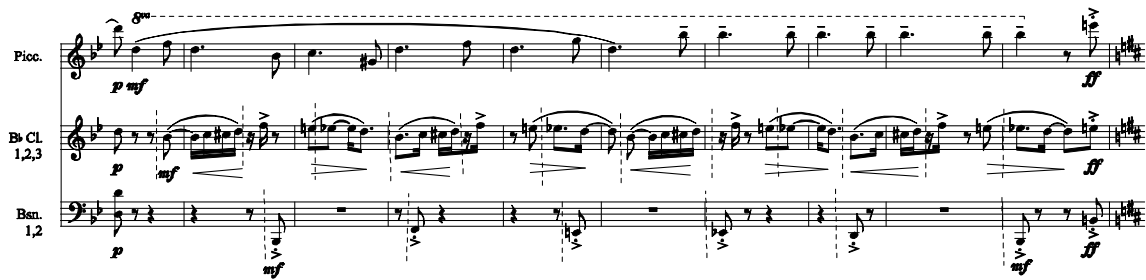


Figure 25. Varied recapitulation of theme B to present new countermelody and bass line, each one in a different meter (first staff is 2/4, second staff is 3/8, and third staff is 6/8). However the time signature (2/4) is the same for all voices.

To some extent, the absence of the other melodic lines of theme B (such as the horn melody [16-20]) is compensated by the fact that theme D has already recapitulated the horn melody and motive *b* from theme A.

Theme E [132-136] explores motive *a*, and serves to create contrast and move away from B1.

Theme B2 [137-143] is a variation of theme B1. The latter's clarinet countermelody is played again by B2 in the high register. The texture of theme B2 is new: strings present a new rhythmic idea, based on a succession of perfect 5ths and 4ths in the accompaniment.

Like theme E, theme F [144-148] creates contrast and mixes elements of themes A and B1. The main melody of theme A, presented in [4-6], is recapitulated twice by the first clarinet [144-146], and later by the flutes [147-149]. The countermelody of B1 is played this time in the bass.

Theme B3 is a longer version of B2, slightly varied. In [157] there is a restatement of important ideas of the recapitulation section: the chromatic scale motive [98-100] of theme A, and motive *b*. Theme B3 leads to the convergence point of this movement: the recapitulation of theme A (theme A4).

The main melodic line of theme A is recapitulated by A4 [161-168]. In order to characterize the convergence point of the work all materials are transformed into one single element. That is why the texture has only one melody, although there is some filling in in the strings and bassoons. The convergence point is also emphasized by the harmonic scheme (Figure 26), which postpones the return of A major/lydian. Although the majority of the themes of the recapitulation section are not presented in A, they occur in keys related to it. The key of B $\flat$  functions as an upper leading tone, D and E as subdominant and dominant.

Theme D	Theme B1	Theme E	Theme B2	Theme F	Theme B3	Theme A4
A major/minor/ mixolydian	B $\flat$ mixolydian	D major/mixolydian	B $\flat$ major expanded	E major expanded	B major expanded	A major - expanded

Figure 26: Keys of the recapitulation section.

The coda [168-180] brings back just a reminder of theme D. After that, the piano presents the last gesture, a chromatic scale.

## 4. *Lights II*

### 4.1 Motivations

*Lights II* is a variation of *Lights*. The former brings back in a new perspective some of the structure, mood, and elements from the latter. *Lights II* confirms the idea of unity: one melody happens at a time (except for a few events) and all the accompaniment is derived from it.

*Lights II* also brings ideas from *Convergences*, and serves the entire *Concerto* as a movement of amalgamation of previous and new materials. It recalls the idea of flat scales representing darkness and the sharp scales representing brightness.

The main inspirational idea for this movement is contemplation. When I was playing the major 6th interval of A2-F#3, I was deeply moved by its sonority on the piano. I decided to explore a whole movement on those two notes.

Contrary to the first two movements, I had fewer influences from other composers in *Lights II*. It came naturally as a product and continuation from *Lights* and *Convergences*. However, for the interval A2-F#3, I decided to analyze its spectrum played on a sample piano to derive pitches to be superimposed upon it. This idea is the result of reading Fineberg's *Guide to the Basic Concepts and Techniques of Spectral Music*<sup>18</sup>.

### 4.2 Analysis

*Lights II* is organized in sonata form. The exposition features an introduction and two themes. The introduction [1-7] presents three times the interval A2-F#2. The

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<sup>18</sup> Joshua Fineberg, "Guide to the Basic Concepts and Techniques of Spectral Music," *Contemporary Music Review* 19, no. 2 (2000): 81-113.

contemplative nature of this part is to give emphasis on this interval. It is presented in a very prolonged way, and in slow tempo. In order to give the interval A2-F#3 some depth, more notes were added to it, according to an analysis of its spectrum played in a sample piano. I chose this instrument because I was moved by the way this interval sounded in that timbre. For every repetition of interval A2-F#3, different notes of its spectrum are emphasized.

I used the program Audacity to perform a plot spectrum analysis of the interval to visualize its harmonics. Figure 27 shows its plot spectrum analysis.

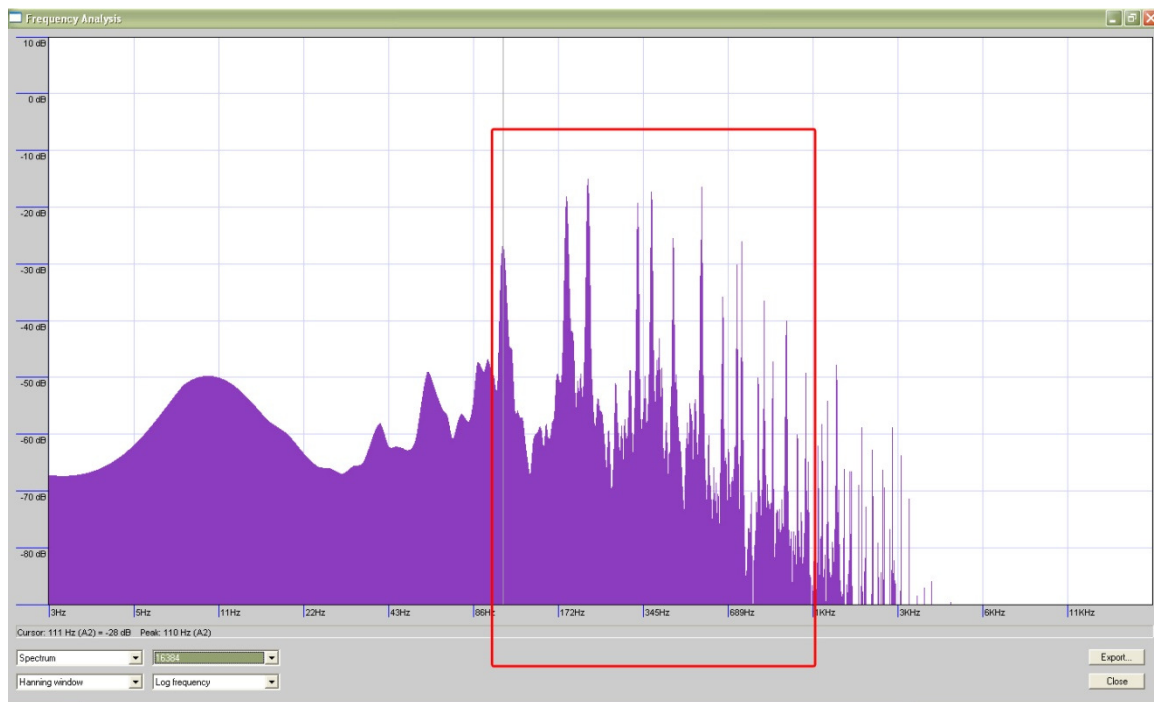


Figure 27: Audacity plot spectrum analysis of the chord A2-F#3 played on a sample piano. The rectangle frames pitches used. The first partial is near the left bar of the rectangle.

The pitches, represented by vertical peaks from the left to the right, and inside the vertical rectangle, are A2 F#3 A3 E4 F#4 A4 C#5 E5 F#5 G5 A#5 C#6 E6. They are the pitches used in the three repetitions of the interval A2-F#3.

The three repetitions are not identical, however. That is because they start with a wide range that is contracted to outline a descent to the entrance of the horn [8]. The descent line is marked by the highest pitch of each repetition. At [1] the highest pitch is E6, it descends to C# [5], then to F# [6], and lastly to B [8] when the horn enters.

Theme A [8-35] is contemplative and is based on the repetition of the melodic line of the horn [8-11]. It evokes the beginning sonority of *Lights* with B C# D, which is a transposition of F G A $\flat$  (IS1).

At [11-13], low strings play a more elaborate version of the first chord of the work, presented as A2 F#3 C#3 E3. I played this chord on the piano and analyzed its spectrum, as explained in Figure 26, in order to obtain complementary pitches. They are played by piano, harp, glockenspiel, and high woodwinds at [11-13]. This chord suggests the idea of lights through timbre. It is first played by the brass, then by the woodwinds and strings together. The timbre of these last two orchestral groups is emphasized because each group achieves the dynamic marking of *f* at different times. Another instance where the idea of lights is suggested by timbre happens when the strings alone continue the melody of the horn [17-20].

The first climax [20-24] of the exposition section is modeled on the climaxes of *Lights*. The brass brings back a similar rhythmic activity to *Lights* [58-60]. After that [27-35], the texture is similar to that of the first theme of *Lights*. It is based on one melody played by different instruments. Some of its notes are held in order to create harmonic tension. The closure of Theme A gradually moves to the high register. The last chord [35] (Figure 28) is a double leading tone to the interval signal B $\flat$ -E [36] that marks the beginning of theme B.

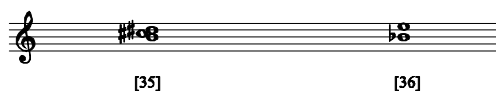


Figure 28: Harmonic progression responsible for making the transition from theme A to theme B.

Theme B [36-58] is an opposition to theme A. The former is characterized by a long and constant descent to the low register [58]. Its texture is sparse and chamber-like. As in *Lights*, theme B also favors the woodwinds. The main melody is presented by the bassoon (Figure 29) [39-43]. This melody is a variation from theme A of *Convergences*. It appears twice in theme B, the second featuring varied repetition. The harmony favors chromatic relations and employs flat and sharp scales. It attempts to convey a dark mood.



Figure 29. The original theme A of *Convergences* (first staff) is varied and transposed to C in theme B of *Lights II* (second staff). Theme B is varied (third staff).

The exposition section favored the scale of A major/mixolydian in the introduction and theme A. The key of A major is emphasized towards the end of theme A. The tonal force is stronger in this movement than the others. G# is introduced in the pulsating material of the brass [21-24].

The development section [59-80] is bright, joyful and playful, and occurs in A major. It introduces two new themes (C and D). Theme C [59-66] is a variation of the pulsating material of the brass [21-24], played in the exposition. It is played on E<sup>7</sup>. Theme C is a dialogue between the trombone and the trumpet. In their melodies, each one of them has two notes, a third a part. This theme is a play on the climaxes of *Lights* that were defined by the interval of a third. The E<sup>7</sup> resolves on A E F# B C# [65] (Figure 30). This resolution chord (a), played mainly by the horns, is an echo of a similar gesture from *Lights* [80-81] (b).

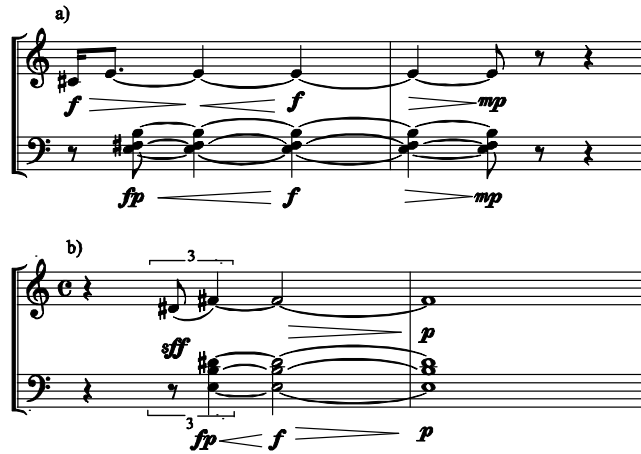


Figure 30. Horn gesture (a) from *Lights II* derived from the gesture (b) of *Lights*.

Theme D [67-80] has two parts: part *a* [67-73] and part *b* [74-80]. Part *a* is a variation of the second theme of *Lights*. When I first discussed the latter I mentioned that “because it is played so slowly, it is difficult to perceive what the real melody is. It would be much easier to pick it up if it were played four times faster,” (p. 14). Hence, part *a* brings the main melody of the second theme of *Lights* in a faster rhythm and pulse in order to reveal what is the real melody. Part *a* also keeps some of the irregular accentuations from the pulse material of theme C, which contributes to the playful mood of this part.



Part *b* starts with a solo piano and oboe melody which is continued by the horn. Figure 31 shows that this melody is the product of the combination of the main melodies of part *a* and theme A from *Convergences*. Although part *b* introduces a new texture, a sense of continuity is created by the melodic relations between parts *a* and *b*.

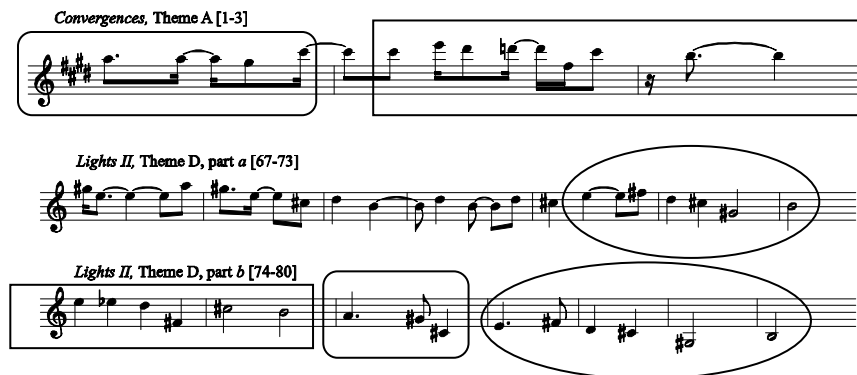


Figure 31. The main melody of Part *b* of theme D is a combination of the melodies from part *a* and theme A from *Convergences*.

The recapitulation section [81-109] brings back themes A and B, followed by the introduction, which functions as a coda. The recapitulation of theme A is actually a development of its materials. The three note cell B C# D of theme A [81-99] is developed, varied, and played by different instruments in different keys. The bassoons and trombone play it in G minor [81-83], and again in E♭ minor [85-87]. The cell is recapitulated at its original level (B C# D) by the horns [87-89]. Later, other keys appear: C minor [92], E♭ major [93], and C major [94-99].

Originally the exposition presented theme A in a bright key (A major) and theme B in a dark key (chromatic). The recapitulation reverses this. Theme A is presented in flat keys (dark), whereas theme B is presented in a bright key, C major. Furthermore, that is the same key order of the exposition of *Lights*, which had F minor / D♭ major first and then B dorian.

The passage [95-99] that precedes theme B [100-104] emphasizes the dominant G7 in order to prepare the key of C major, in which theme B is presented. Its recapitulation brings back only the major melody that was first played by the bassoons [39-43]. Theme B outlines the climax of the piece. It appears in a high register and in *tutti*, which emphasizes its bright character as well.

The climax achieved by theme B is resolved in the coda [104-109], which brings back the first chord of the work A-F#. However, pitches B and D are added on top of A-F# and produce a different sonority from the beginning gesture. The effectiveness of the return of the opening gesture at the end of the piece relies on the fact that throughout the entire recapitulation, the key of A was denied until the very last moment. As I explained in my interest in the SET, I decided to recapitulate the opening gesture slightly varied. The harmony is different and the texture is not dense. The opening gesture appears in the middle-low range to add contrast to the preceding climax.

## 5. *Convergences II*

*Convergences II* features the idea of fragmentation and alternation. It shares with *Convergences* the characteristic of being bright and joyful. This is expressed by the baroque technique of opposing *tutti* to episodes evoking the idea of friendship and dialogue between people.

*Convergences* explores the idea of superimposition and alternation of different material, which are transformed into one single idea at the end of the work. *Convergences II* avoids superimposition and favors the alternation of ideas, and clear textures. This movement is neither very active as was the second movement, nor is relatively inactive as the first and third movements. It stands in between the two extremes of the *Concerto*. Because of that, it presents a sort of “resolution” of the types of activities experienced so far in the work. Its resolution effect is also enhanced by other characteristics. *Convergences II* is almost dance-like; its pulse is accentuated. It is not as long as the other movements (two minutes and forty seconds versus five to six minutes), due to its reduced number of materials.

The form of *Convergences II* is an amalgamation of elements from the sonata and the ritornello forms. The exposition section from the sonata form is kept. After that the narrative is based on the alternation of *tutti*'s and episodes. Towards the end, there is a short recapitulation of the first theme (A) and a coda.

The exposition section [1-40] presents two contrasting themes (A and B), both derived from *Convergences*. Theme A [1-24] has four parts: *abcb*. They function to create a dialogue between registers. Part *a* [1-5] is played in *tutti*. Its main melody is derived from the main melody of theme A of *Convergences* (Figure 31). The chromatic scale extensively used in the second movement gives place to arpeggio figures that serve only to accentuate the beats and emphasize the melody. The A major scale is used without any chromatic interference on the melodic plane. The vertical chords and arpeggios are based

on intervals of perfect fourths. Because of that, non-scale notes appear and help to expand the A major sonority. An example of this is the chord A $\sharp$  D $\sharp$  G $\sharp$  used in [2] (Figure 32). A few triads appear at key moments to delineate the tonal world of A major: G $\sharp$ <sup>o</sup> for example is used in [3].



Figure 32. Part *a* [1-5] of theme A is derived from the theme A of *Convergences*. In part *a*, the A major scale is used for the main melody, while chords based on perfect fourths are used for the accompaniment.

Part *b* [6-10] keeps the same characteristics of pitch, rhythm, and texture from part *a*. It emphasizes melodically the interval of the minor third B G $\sharp$ . However, the instrumentation is different, and part *b* favors a softer sonority and the mid-high register.

Part *c* [11-18] brings contrast to part *b* in many ways. Part *c* explores the low register and brass timbre. The harmony is dissonant and is based on the chord A B C $\sharp$  D $\sharp$  [11], which is used to emphasize the melody of the low register. In opposition to part *b*, part *c* has no arpeggios. Like part *b*, the main melody of part *c* also focuses on the repetition of the interval of a minor third F $\sharp$  A [10-12]. After that, part *b* is repeated [19-24] and slightly varied.

Theme B [26-40] is completely different from theme A. It is cyclical. Its major idea is introduced in [26-29] (Figure 33); and then, is repeated twice with variation. For each new repetition, it increases in length. They are separated by the gesture E $\flat$  C played in

*tutti* [28-29]. This is reminiscent of the treatment given to the climatic points of previous movements, which were represented by an interval of a third.



Figure 33. Main melody of theme B [26-29] and first variation [29-34].

The development section [41-94] is entirely organized in the ritornello and episode structure of the Baroque concerto. The ritornellos are played in *tutti* and the episodes are played either by a section of the orchestra or a group of soloists.

The first *tutti* [41-44] (Figure 34) is a variation of theme A. The novelty of this variation relies on the fact that it utilizes the minor scale of F. Furthermore, it brings a variation of the melody from part *c* in the texture of parts *a* and *b*.

*Convergences II, Theme A, part a [1-5]*

*Convergences II, Theme A, part c [1-5]*

*Convergences II, Tutti 1 [41-44]*

Figure 34. First *tutti* of the development section (third system). The *tutti* presents a melody from part *c* (second system) with the texture of parts *a* and *b* (first system).

The first episode [45-52] also combines the melody from part *c* (Figure 34) to the texture of parts *a* and *b* (Figure 35).

*Convergences II, Episode 1 [45-49]*

Figure 35. First episode of the development section. It presents a melody from part *c* (compare to Figure 34) with the texture of the parts *a* and *b*.

The second *tutti* [53-58] is a variation of part *c*. The original texture and orchestration are kept. The melody and harmony are changed to create contrast.

After that, the second episode [59-67] reprises the horn melody from theme B of *Convergences* in the context of the texture of part *a* (Figure 36).

The image displays two staves of musical notation. The top staff is titled "Convergences, Theme B [16-26]" and features a melody in treble clef with a key signature of two sharps (F# and C#). The melody consists of eighth and quarter notes, with several triplet markings (indicated by a '3' over a bracket). The dynamic marking *mf* is present. The bottom staff is titled "Convergences II, Episode 2 [59-67]" and shows a piano accompaniment in treble and bass clefs. The key signature remains two sharps. The tempo/mood marking *f cantabile, espressivo* is written above the treble staff. The piano part features a steady eighth-note accompaniment in the bass and chords in the treble, with some melodic lines in the treble staff.

Figure 36. Second episode. The horn melody from theme B of *Convergences* is varied here in the context of the texture of part *a*.

A *tutti* would be expected after the second episode. However, a third episode [69-76] is presented. It is a mix of episode and *tutti* for it alternates soloists and *tutti*. It starts with the same melody from episode 1.

The third *tutti* [77-85] presents a superimposition of the melody from episode 1 and a fragment from theme B, as Figure 37 shows.

*Convergences II*, Episode 1 [45-49]

*Convergences II*, Theme B, [26-29]

*Convergences II*, Tutti 3, [77-81]

Figure 37. Third *tutti* superimposes the melody from episode 1 and a fragment from theme B.

The third episode [86-94] builds up tension to the climax point [94] that marks the end of the development section.

A full recapitulation of part *a* of theme A [95-102] is given. Part *a* was not as developed as parts *b* and *c*. It was saved only for the recapitulation. After that, just a fragment of part *b* is recapitulated [101-102]. The idea here is to evoke a sense that the music stopped suddenly without a conclusion.

However, a conclusion is given: the coda [103-113] which behaves like a revelation. It can be comic because it seems that there is no relation between its materials to the rest of the piece. It also creates a surprise.

The texture, harmony, key, and gestures of the coda are specific. It features a dialogue of piano and oboe. The oboe melody is a variation of the melody of part *b*. However, it is presented in the flat key of G minor in order to create a sense of arriving at a similar sonority to the beginning of the *Concerto* F G A $\flat$ , a flat key.



## Conclusion

The *Concerto for Orchestra* attempted to create a narrative based on the ability to evoke different moods, colors, and meanings. It also attempted to create a sense of tension and resolution through the use of a harmonic language derived from Ligeti's *Double Concerto* and from my own musical experience. The harmonic language of the *Concerto for Orchestra* was based upon the opposition of specific harmonic sonorities—the interval signal—to passages that were unstable harmonically and had no prominent interval. At other times, the *Concerto* favored the use of diatonic scales to characterize passages. It also featured a polar relation of sharp scales to flat scales. In general, accompaniments were based on non-traditional chords. Because interval signals and specific diatonic scales were placed at formally important moments (arrivals, beginning) and associated with changes of texture and timbre, they became important in delineating the form of each movement and differentiating passages. The narrative of the work was based on the concept of states, events and transformations. Although states—after presented—were transformed into a new state, all states shared characteristics and even similar material, giving the piece a sense of continuation and cohesion.

The *Concerto* is a culmination of experiences from my life and from my musical knowledge. They guided me to create a work that balances contrast and similarity. An example of this balance occurs every time a theme is repeated with a different mood. The repetition sets similarity at the same time the variation sets contrast. I see this process as what gives “life” to the *Concerto*; it accumulates materials/experiences and later expresses them in a different way, in different contexts.

**Luís Otávio T. Passos**

# **Concerto for Orchestra**

(2010-1)

## orchestra

3 flutes (Fl. III interchangeable with piccolo)  
2 oboes  
1 english horn  
3 clarinets in Bb  
2 bassoons  
1 contrabassoon

4 horns  
3 trumpets in C  
3 trombones  
1 tuba

percussion (3 players)  
glockenspiel\*, xylophone\*\*,  
triangle, castanets, tambourine,  
cuíca, 5 temple blocks,  
slapstick, agogô (2 pitches)

drum set: bass drum,  
3 tom-toms (1 floor tom),  
hi-hat, 2 suspended cymbal  
(1 small, 1 normal size)  
snare drum

tam-tam

harp

piano  
celesta\*\*

violin I  
violin II  
viola  
violoncello  
double bass

\* sounds 2 octaves higher  
\*\* sounds 1 octave higher  
the score is in C.

## duration:

Lights:	6'30
Convergences:	5'00
Lights II:	6'00
Convergences II:	2'30

# Concerto for Orchestra

**Luis Passos**  
(2010-1)

## I. Lights

Nostalgic, delicate and colorful, ♩ = 60

Flute 1 *p* *pp* *p* *pp* *p*

Flute 2 *p* *pp* *p* *pp* *pp* *p*

Flute 3 *p* *pp* *p* *pp* *pp* *p*

English Horn *mp*

Clarinet in B $\flat$  1 *p* *pp* *mp*

Clarinet in B $\flat$  2 *p* *pp* *mp*

Clarinet in B $\flat$  3 *p* *pp*

Bassoon 1 *p* *pp* *p* *pp*

Bassoon 2 *p* *pp* *p*

Horn in F 1 *p* *con sord.* *pp*

Trumpet in C 1 *p* *con sord.* *pp*

Trumpet in C 2 *p* *con sord.* *pp*

The score is for a 12-part orchestral ensemble. It features three flutes, an English horn, three clarinets in B-flat, two bassoons, two horns in F, and two trumpets in C. The music is in 4/4 time with a tempo of 60 beats per minute. The key signature has one flat (B-flat major or D minor). The score includes various dynamic markings (p, pp, mp) and articulations (accents, slurs, triplets). There are also performance instructions like 'con sord.' (con sordina) for the horns and trumpets. The score is divided into measures by vertical bar lines, with some measures containing multiple staves for different instruments.

7 9 11 13

Fl. 1 *p* *pp* *p* *pp*

Fl. 2 *pp* *p* *pp*

Fl. 3 *pp* *p* *pp*

E. Hn. *mp* *mp* *mf* *mp*

B♭ Cl. 1 *p* *pp* *p* *pp*

B♭ Cl. 2 *p* *pp* *p* *pp*

Bsn. 1 *p* *pp* *p* *pp*

Bsn. 2 *pp* *p* *pp* *p* *pp*

Hn. 1 *p* *pp*

Hn. 2 *p* *mp* *con sord.*

C Tpt. 1 *p* *pp*

C Tpt. 2 *p* *pp*

Tbn. 1 *con sord.* *p* *pp*

Tbn. 2 *con sord.* *p* *pp*

Hp. *E♭ F♭ G♭ A♭*  
*B♭ C♭ D♭*  
*mp*  
*do not aperc.*  
*harmonics sound an octave higher*

Vln. I *con sord.* *p* *mp* *p* *IV* *p*

Vln. II *con sord.* *p* *pp* *IV* *p*

Vla. *con sord.* *p* *pp* *III* *p* *pp*

Vc. *IV* *p* *pp* *p* *pp* *p*

D.B. *p* *pp* *p*

Fl. 1 *p* *pp*

Fl. 2 *p* *pp* *p* *mf*

Fl. 3 *p* *pp* *p* *mf*

E. Hn. *mf*

B♭ Cl. 1 *p* *pp* *p* *mf*

B♭ Cl. 2 *p* *pp* *p* *mf*

B♭ Cl. 3 *p* *pp* *mp* *mf*

Bsn. 1 *p* *pp*

Bsn. 2 *p* *pp*

Hn. 1 *p* *pp* *p* *mf*

Hn. 2 *p* *pp* *p* *mf*

C Tpt. 1 *p* *pp*

C Tpt. 2 *p* *pp*

Tbn. 1 *p* *pp* *p* *mf*

Tbn. 2 *p* *pp* *p* *mf*

Perc. Small Sus. Cym. *pp* damp *mp*

Hp. *mp*

Vln. I *pp* *p* *pp* *p* *mf*

Vln. II *pp* *p* *pp*

Vla. *p* *pp* *p* *pp* *mf*

Vc. *pp* *p* *pp* *p* *pp*

D.B. *pp* *p* *pp*

Fl. 1, 2, 3 *mp*

Ob. 1, 2 *pp* *mp* *p* *mp*

B♭ Cl. 1, 2 *pp* *mp* *p* *mp*

Bsn. 1, 2 *pp* *mp* *p* *mf* *mp*

Glk. *mp* *sempre* *bring out*

Hp. *mp* *sempre* *do not apergg.* *bring out* *D<sub>5</sub>*

Cta. *mp* *sempre*

Vln. I *senza sord.* *p* *div.*

Vln. II *senza sord.* *p*

Vla. 1 *senza sord.* *p*

Vla. 2 *senza sord.* *p*

Vc. 1 *p*

Vc. 2 *p*

Vc. 3 *p*

Vc. 4 *p*

D.B. *pp*

D

Fl. 1, 2, 3

Ob. 1, 2

B♭ Cl. 1, 2

Bsn. 1, 2

Glk.

Hp.

Cta.

Vln. I

Vln. II

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Vc. 3

Vc. 4

D.B.

Measures 29, 31, and 33 are marked with circled numbers. The score includes various musical notations such as dynamics (*p*, *mp*, *mf*), articulation (*acc.*, *acc.*), and performance instructions (*mp sempre*, *unis.*, *IV*, *II*). The key signature is D major, and the time signature is 4/4.



58

F
G

Fl. 1, 2, 3 a<sup>3</sup> 43 45 47 49 G

E. Hn. p pp p pp

B $\flat$  Cl. 1 p pp p pp p

B $\flat$  Cl. 2, 3 a<sup>2</sup> p pp p pp p pp p pp

Bsn. 1, 2 p pp p pp p pp p pp

Hn. 1, 2 p pp p pp p pp p pp a<sup>2</sup> p mp

C Tpt. 1, 2 1. p pp p pp p pp p pp

Tbn. 1, 2 p pp p pp p pp

Vln. I p mp p mp p

Vln. II p p

Vla. p mp p

Vc. p mp p

D.B. p

51 53 55 57

Fl. 1, 2, 3 *a3*  
*p* *pp* *mp* *f* *p*

Ob. 1 *p* *pp*

E. Hn. *p* *pp* *bring out* *mp* *f* *p*

B $\flat$  Cl. 1, 2, 3 *a2*  
*p* *pp* *pp* *pp* *mp* *f* *p* *a2*

Bsn. 1, 2 *p* *pp* *p* *pp* *mp* *f* *p*

C. Bn. *f*

Hn. 1, 2 *mf* *p* *f* *p* *pp* *a2* *bring out* *mf*

Hn. 3 *con sord.* *p* *f*

C Tpt. 1 *mp* *echo* *pp* *f* *p*

C Tpt. 2 *p* *f* *pp* *con sord.* *p* *f* *p*

C Tpt. 3 *con sord.* *bring out* *mf* *mf*

Tbn. 1, 2 *p* *f* *p* *pp* *con sord.* *mp* *f* *p*

Tbn. 3 *p* *f* *p* *pp* *p* *f* *p*

Tuba *fp*

Vln. I *mp* *f* *pp* *mp*

Vln. II *pizz. arco* *f* *fp* *f* *p* *mp*

Vla. *mp* *p* *pp* *mp*

Vc. *mp* *fp* *p* *f* *mp*

D.B. *mp* *p* *pp* *f* *f* *fp* *f* *pp*

61

65 67 69

Fl. 1 *p* *mp* *mf*

Fl. 2 *p* *pp* *p* *mp* *mp* *mf* *mf*

Fl. 3 *p* *pp* *mp* *mf*

Ob. 1 *p* *mp* *mp* *mf* *mp* *mf*

Ob. 2 *p* *mp* *mp* *mf* *mp* *mf*

E. Hn. *p* *mp* *mp* *mf*

B♭ Cl. 1 *p* *pp* *mp* *mf*

B♭ Cl. 2 *p* *pp* *mp* *mf*

B♭ Cl. 3 *p* *pp* *mp* *mf*

Bsn. 1 *mp* *mf*

Bsn. 2 *mp* *mf*

Hn. 1,2 *a2* *p* *mp* *p*

Hn. 3,4 *a2* *p*

C Tpt. 1 *ff* *fp* *mf* *p*

C Tpt. 2 *fp* *mf* *p*

C Tpt. 3 *fp* *mf* *p*

Vln. I *p* *mp* *mp* *mf*

Vln. II *p* *mp* *mp* *fp* *mf* *mf*

Vla. 1 *fp* *mf*

Vla. 2 *fp* *mf*

Vc. *p* *mp* *fp* *mf* *mf*

71 73

Fl. 1 *f* *ff* *mf* *p* Fl. 3 to piccolo

Fl. 2,3 *f* *mp* *ff* *mf* *p*

Ob. 1 *f* *f* *ff* *mf*

Ob. 2 *f* *f* *ff* *mf*

B♭ Cl. 1 *mp* *ff*

B♭ Cl. 2,3 *mp* *ff*

Hn. 1,2 *f* *fmp* *p*

Hn. 3,4 *f* *fmp* *p*

C Tpt. 1 *f* *mf* *f* *p* *fmp* *p*

C Tpt. 2 *f* *mf* *f* *p* *fmp* *p*

C Tpt. 3 *f* *fmp* *p*

Tuba *f* *mf*

Glk. *ff*

Hp. *G<sub>2</sub>* *ff*

Cta. *ff*

Vln. I A *mf* *f* *ff* *p*

Vln. I B *mf* *f* *ff* *p*

Vln. II *f* *div.* *ff* *mf* *p*

Vla. 1 *mf* *f* *fmp*

Vla. 2 *mf* *f* *fmp*

Vc. *f* *mf* *f* *fmp* *pizz. molto vib.* *molto vib.*

D.B. *ff* *f*

75 77

Fl. 1,2 *a2* *mp* *mf* *mp* *f* *mf* *ff* *fff*

Ob. 1,2 *ff* *fff*

E. Hn. *mf* *ff* *fff*

B♭ Cl. 1,2,3 *a3* *mp* *mf* *mp* *f* *mf* *ff*

Bsn. 1,2 *mf* *ff* *fff*

C. Bn. *f* *ff* *fff*

Hn. 1,2 *a2* *mp* *f* *mf* *ff* *fff*

Hn. 3,4 *a2* *mp* *f* *mf* *ff* *fff*

C Tpt. 1 *mp* *mf mp* *f* *mf* *ff* *fff*

C Tpt. 2,3 *mp* *mf mp* *f* *mf* *ff* *fff*

Tbn. 1 *mp* *f* *mf* *ff* *fff*

Tbn. 2 *f* *mf* *ff* *fff*

Tbn. 3 *mf* *ff* *fff*

Tuba *ff* *fff*

Perc. *Tam tam* *pp* *mf* *ff* *fff* *damp*

Vln. I A *mp* *mf* *mf* *f* *f* *ff* *fff* *div.*

Vln. I B *mp* *mf* *mf* *f* *f* *ff* *fff*

Vln. II A *mp* *mf mp* *f* *mf* *ff* *fff*

Vln. II B *mp* *mf mp* *f* *mf* *ff* *fff*

Vla. 1 *mp* *mf mp* *f* *mf* *ff* *fff*

Vla. 2 *mp* *f* *mf* *ff* *fff*

Vc. 1 *mp* *f* *mf* *ff* *fff*

Vc. 2 *mf* *ff* *fff*

D.B. *f* *ff* *fff*

This page of the musical score is for a symphony, likely the first movement of a Beethoven symphony given the instrumentation and dynamics. The score is written for a full orchestra and includes the following instruments and parts:

- Picc.** (Piccolo)
- Fl. 1, 2** (Flutes)
- Ob. 1, 2** (Oboes)
- E. Hn.** (English Horn)
- B♭ Cl. 1, 2** (B-flat Clarinets)
- B♭ Cl. 3** (B-flat Clarinet)
- Bsn. 1, 2** (Bassoons)
- Hn. 1, 2** (Horns)
- Hn. 3, 4** (Horns)
- C Tpt. 1, 2** (C Trumpets)
- C Tpt. 3** (C Trumpet)
- Tbn. 1, 2** (Trombones)
- Tuba**
- Glk.** (Glockenspiel)
- Hp.** (Harp)
- Cta.** (Cello)
- Vln. I** (Violin I)
- Vln. II** (Violin II)
- Vla.** (Viola)
- Vc.** (Violoncello)
- D.B.** (Double Bass)

The score includes various dynamic markings and performance instructions:

- Dynamic markings:** *ff* (fortissimo), *f* (forte), *mf* (mezzo-forte), *mp* (mezzo-piano), *pp* (pianissimo).
- Performance instructions:** *all horns senza sord.* (all horns without mutes), *pizz. molto vib.* (pizzicato, very vibrating).
- Other markings:** *div.* (divisi), *unis.* (unison), *8va* (octave), *A<sub>0</sub>*, *G<sub>3</sub>*, *F<sub>2</sub>*.

The score is written in a standard musical notation with a key signature of one flat (B-flat) and a time signature of 4/4. The page number 79 is visible in the top right corner.



B♭ Cl. 1,2,3  $\text{a}^3$   $p$   $\text{pp}$   $p$   $\text{pp}$   $p$   
 Bsn. 1  $\text{mp}$   $p$   $p$   
 Bsn. 2  $p$   $\text{pp}$   $p$   $\text{pp}$   
 C. Bn.  $p$   $\text{pp}$   $p$   $\text{pp}$   
 Hn. 1,2  $\text{horns 1,3,4 con sord.}$   $p$   $\text{pp}$   $p$   $\text{pp}$   
 Hn. 3,4  $\text{a}^2$   $p$   $\text{pp}$   
 Tbn. 1  $p$   
 Tbn. 2  $p$   $\text{pp}$   $\text{mp}$   
 Tuba  $\text{mp}$   $\text{pp}$   $\text{mp}$   $p$   
 Vla. 1  $p$   $p$   
 Vla. 2  $p$   $\text{pp}$   
 Vc. 1  $p$   $\text{pp}$   $p$   $\text{pp}$   $\text{mp}$   $\text{solo}$   
 Vc. 2  $p$   $\text{pp}$

[illegible]

# II. Convergences

5

Rhythmic, with enthusiasm,  $\text{♩} = 75$

3

Piccolo  
 Flute 1,2  
 Oboe 1,2  
 English Horn  
 Clarinet in B $\flat$  1,2,3  
 Bassoon 1,2  
 Contrabassoon  
 Horn in F 1,2  
 Horn in F 3,4  
 Trumpet in C 1,2  
 Trumpet in C 3  
 Trombone 1  
 Trombone 2  
 Trombone 3  
 Tuba  
 Glockenspiel  
 Xylophone  
 Percussion  
 Piano  
 Violin I  
 Violin II  
 Viola  
 Cello  
 Double Bass

Musical score for "II. Convergences". The score is written for a large orchestra and includes various instruments. The tempo is marked "Rhythmic, with enthusiasm" with a quarter note equal to 75 beats per minute. The key signature is two sharps (F# and C#). The score is divided into measures, with a 3-measure rest indicated at the top. Dynamics include *ff* (fortissimo), *f* (forte), *mf* (mezzo-forte), and *mp* (mezzo-piano). Performance instructions include "gliss." (glissando) and "pizz." (pizzicato). The score is copyrighted by the author in 2010.

7 9 11 13

Picc. *f* *ff*

Fl. 1,2 *f* *ff*

Ob. 1,2 *f* *ff*

E. Hn. *f* *ff*

B♭ Cl. 1,2,3 *f* *ff*

Bsn. 1,2 *f* *ff*

C. Bn. *f* *ff*

C Tpt. 2,3 *f* *mf* *ff*

Tbn. 1 *mf* *ff*

Tbn. 2 *gliss.* *gliss.* *mf* *ff*

Tuba *mf* *ff*

Glk. *f*

Xyl. *f*

Perc. Tom-tom *mp* *f* *mp* *f* *mp* *f* Snare drum *mf* *ff* *f* *mf* *mp* *ff* *ff*

Vln. I *f*

Vln. II *f*

Vla. *f*

Vc. *f*

D.B. *pizz.* *ff*

Picc. (15) (17) (19)  
 Fl. 1,2 *fff* *a2* *fff* *p*  
 Ob. 1,2 *fff* *a2* *<fff* *fff* *mf*  
 E. Hn. *fff*  
 B♭ Cl. 1,2,3 *a3* *fff* *f* *fff* *fff*  
 Bsn. 1,2 *a2* *fff* *<fff* *fff* 1. *mf* 2. *mf*  
 C. Bn. *fff*  
 Hn. 1,2 *fff* 1. *mf* 3. *mf*  
 Hn. 3,4 3. *mf*  
 C Tpt. 1,2,3 *fff*  
 Tbn. 1,2,3 1. *mf* 2. *mf* 3. *mf* con sord  
 Tuba *fff*  
 Glk. *fff* *mf*  
 Xyl. *mf*  
 Perc. Small Sus. Cym *f*  
 Vln. I arco *fff* div. *pizz. unis.* *mf*  
 Vln. II arco *fff* div. *pizz. unis.* *mf*  
 Vla. *fff* *mp delicate*  
 Vc. *fff* *mp delicate*  
 D.B. *fff*

[illegible]

This musical score is for the piece "The Rose Tree" from the Broadway musical "The Rosemary and Thyme". It is a full orchestral and band score, featuring a 12-piece orchestra and a 12-piece band. The score is written for a key of D major and a 4/4 time signature. It includes staves for strings, woodwinds, brass, and percussion, with various musical notations such as dynamics, articulation, and performance instructions.

The score is divided into three systems, each containing six staves. The first system (measures 1-12) features a string quartet, a woodwind quartet, a brass quartet, and a percussion section. The second system (measures 13-24) features a string quartet, a woodwind quartet, a brass quartet, and a percussion section. The third system (measures 25-36) features a string quartet, a woodwind quartet, a brass quartet, and a percussion section.

The score includes various musical notations such as dynamics (e.g., *ff*, *f*, *mf*, *ff*), articulation (e.g., *acc.*, *stacc.*, *stacc.*), and performance instructions (e.g., *Snare drum*, *Tom-tom*, *pizz.*, *pizz.*). The score also includes a variety of musical symbols, including notes, rests, and accidentals.

Picc. (37)  
 Fl. 1,2 a2  
 Ob. 1,2 a2  
 E. Hn. ff  
 B♭ Cl. 1,2 a3  
 Bsn. 1,2 (a2)  
 C. Bn. f  
 Hn. 1,2 ff  
 Hn. 3,4 a2  
 C Tpt. 1,2,3 f  
 Tbn. 1,2 f  
 Tbn. 3 senza sord.  
 Tuba legato  
 Glk. ff  
 Xyl. ff  
 Perc. Tom-tom  
 Pno. ff  
 Vln. I arco  
 Vln. II div.  
 Vla. div.  
 Vc. f  
 D.B. f

Musical score for page 23, measures 37 to 41. The score includes parts for Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, B♭ Clarinets 1 & 2, Bassoons 1 & 2, Contrabassoon, Horns 1 & 2, Horns 3 & 4, Cornets 1, 2, & 3, Trombones 1 & 2, Trombone 3, Tuba, Glockenspiel, Xylophone, Percussion (Tom-tom), Piano, Violins I & II, Viola, Violoncello, and Double Bass. The score features various dynamics (ff, f, mf, mp, sfz, sfz), articulations (legato, sfz, sfz), and performance instructions (arco, div., senza sord.).



(43) *poco rall. ----- a tempo* (45) (47)

**Instrument List:**

- Picc.
- Fl. 1, 2
- Ob. 1, 2
- E. Hn.
- B♭ Cl. 1, 2, 3
- Bsn. 1, 2
- C. Bn.
- Hn. 1, 2
- Hn. 3, 4
- C Tpt. 1, 2
- Tbn. 1, 2
- Tbn. 3
- Tuba
- Glk.
- Perc. (Tom-tom, Snare drum)
- Pno.
- Vln. I
- Vln. II
- Vla.
- Vc.
- D.B.

**Measure 43:** Picc. (a2), Fl. 1, 2 (a2), Ob. 1, 2 (a2), E. Hn. (1, 2), B♭ Cl. 1, 2, 3 (3.), Bsn. 1, 2 (a2), C. Bn. (a2), Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, Tbn. 1, 2, Tbn. 3, Tuba, Glk., Perc. (Tom-tom, Snare drum), Pno., Vln. I, Vln. II, Vla., Vc., D.B.

**Measure 44:** Picc. (a2), Fl. 1, 2 (a2), Ob. 1, 2 (a2), E. Hn. (1, 2), B♭ Cl. 1, 2, 3 (3.), Bsn. 1, 2 (a2), C. Bn. (a2), Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, Tbn. 1, 2, Tbn. 3, Tuba, Glk., Perc. (Tom-tom, Snare drum), Pno., Vln. I, Vln. II, Vla., Vc., D.B.

**Measure 45:** Picc. (a2), Fl. 1, 2 (a2), Ob. 1, 2 (a2), E. Hn. (1, 2), B♭ Cl. 1, 2, 3 (3.), Bsn. 1, 2 (a2), C. Bn. (a2), Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, Tbn. 1, 2, Tbn. 3, Tuba, Glk., Perc. (Tom-tom, Snare drum), Pno., Vln. I, Vln. II, Vla., Vc., D.B.

**Measure 46:** Picc. (a2), Fl. 1, 2 (a2), Ob. 1, 2 (a2), E. Hn. (1, 2), B♭ Cl. 1, 2, 3 (3.), Bsn. 1, 2 (a2), C. Bn. (a2), Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, Tbn. 1, 2, Tbn. 3, Tuba, Glk., Perc. (Tom-tom, Snare drum), Pno., Vln. I, Vln. II, Vla., Vc., D.B.

**Measure 47:** Picc. (a2), Fl. 1, 2 (a2), Ob. 1, 2 (a2), E. Hn. (1, 2), B♭ Cl. 1, 2, 3 (3.), Bsn. 1, 2 (a2), C. Bn. (a2), Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, Tbn. 1, 2, Tbn. 3, Tuba, Glk., Perc. (Tom-tom, Snare drum), Pno., Vln. I, Vln. II, Vla., Vc., D.B.

[illegible]

Picc. (57) (59) (61) (63)  
 Fl. 1,2 *mf*  
 Ob. 1,2 1. *mf*  
 Bsn. 1,2 2.  
 Tbn. 1,2 *f*  
 Perc. Cuica  
 Perc. Temple block *p* *mf p* *mf p* *mf p* *mf p* *f* *mf* *f* *mf* *f* *mf* *f*  
 Snare drum  
 Pno. *ff*  
 Vln. I *f*  
 Vln. II *f*  
 Vla. *f*  
 Vc.  
 D.B. *f*

[illegible]

73 75 77

Fl. 1,2 *p* *f*

Ob. 1,2 *f*

E. Hn. *f*

B♭ Cl. 1,2,3 *a3* *mf* *f*

Bsn. 1,2 *mf* *f*

Bsn. 2 *mf* *f* *mf* *f*

Hn. 1,2 *a2* *mf* *f*

C Tpt. 1,2 *con sord.* *mf* *f*

Tbn. 2,3 *a2* *f*

Tuba *f*

Perc. Triangle *mf* *f*

Vln. I *mp*

Vln. II *mp* *f*

Vla. *mp* *f*

Vc. *f*

D.B. *pizz.* *f*

79 81 83  $\text{♩} = 60$

Picc.  $f$   $p$   $ff$

Fl. 1,2  $f$   $p$   $ff$

Ob. 1  $f$   $p$   $f$   $ff$

Ob. 2  $f$   $f$   $ff$   $f$   $ff$

E. Hn.  $f$   $f$   $ff$   $f$   $ff$

B♭ Cl. 1  $mf$   $f$   $f$   $ff$   $ff$

B♭ Cl. 2  $mf$   $f$   $f$   $ff$   $ff$

B♭ Cl. 3  $mf$   $f$   $f$   $ff$   $ff$

Bsn. 1,2  $mf$   $f$   $f$   $ff$   $ff$

C. Bn.  $f$   $f$   $ff$   $ff$

Hn. 1,2  $f$   $f$   $f$   $ff$   $ff$

Hn. 3,4  $f$   $f$   $f$   $ff$   $ff$

C Tpt. 1,2  $f$   $f$   $f$   $ff$   $ff$

Tbn. 2,3  $f$   $f$   $f$   $ff$   $ff$

Tuba  $f$   $f$   $f$   $ff$   $ff$

Glk.  $f$   $f$   $f$   $ff$   $ff$

Perc.  $f$   $f$   $f$   $ff$   $ff$

Pno.  $f$   $f$   $f$   $ff$   $ff$

Vln. I  $f$   $p$   $ff$

Vln. II  $f$   $p$   $ff$

Vla.  $f$   $p$   $ff$

Vc.  $f$   $f$   $ff$

D.B.  $f$   $f$   $ff$

*div.* *unis.* *div.*

*arco*

Tambourine Castanets

Castanets

Perc.

Pno.

85

87

*mf*

3

7

Perc.

Pno.

89

91

93

95

*mp*

*mf*

3

97  $\text{♩} = 75$  99 101

Picc.  $ff$

Fl. 1,2  $mf$   $ff$

Ob. 1,2  $mf$   $ff$

E. Hn.  $ff$

B♭ Cl. 1,2,3  $f$

Bsn. 1,2  $f$

C. Bn.  $f$

Hn. 1,2  $ff$

Hn. 3,4  $ff$

C Tpt. 1 *senza sord.*  $ff$

Tbn. 1,2 *senza sord.*  $f$  *gliss.* *gliss.*

Tbn. 3 *senza sord.*  $ff$

Glk.  $ff$

Xyl.  $mf$   $ff$

Perc. Small Sus. Cym damp

Pno.  $f$   $ff$   $f$

Vln. I *unis.*  $fff$   $f$

Vln. II  $fff$   $f$

Vc. *unis.*  $f$   $ff$

D.B.  $f$   $ff$



103 105 107 109

Picc. *ff*

Fl. 1,2 *ff*

Ob. 1,2 *ff* *f*

E. Hn. *ff*

B♭ Cl. 1,2,3 *ff*

Bsn. 1,2 *ff* *f*

C. Bn. *ff* *f*

Hn. 1,2 *ff* *f*

C Tpt. 1,2 *ff* *mf* *ff*

C Tpt. 3 *ff* *ff*

Tbn. 1,2 *gliss.* *mf* *ff* *f* *gliss.*

Tuba *ff*

Glk. *ff*

Xyl. *f*

Perc. *ff* *ff* *mf* *f* *Tom-tom*

Pno. *ff* *f* *ff* *f*

Vln. I *ff* *f*

Vln. II *ff* *f*

Vc. *f* *ff*

D.B. *f* *ff*

Picc. (111)  
 Fl. 1,2 (113)  
 Ob. 1,2 (115)  
 B♭ Cl. 1,2,3  
 Bsn. 1,2  
 C. Bn.  
 Tbn. 1,2  
 Tbn. 3  
 Tuba  
 Perc. Tom-tom  
 Pno.  
 Vln. I  
 Vln. II  
 Vla.  
 Vc.

Dynamics: *f*, *ff*, *div.*  
 Articulations: *gliss.*, *>*  
 Rehearsal marks: 111, 113, 115

Picc. (117)  
 Fl. 1,2 (119)  
 Ob. 1,2  
 E. Hn.  
 B♭ Cl. 1,2,3  
 Bsn. 1,2  
 C Tpt. 1,2,3  
 Tbn. 3  
 Tuba  
 Glk.  
 Xyl.  
 Hp.  
 Pno.  
 Vln. I  
 Vln. II  
 Vla.  
 Vc.  
 D.B.

Musical score for measures 117-121. The score includes parts for Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, B♭ Clarinets 1, 2, & 3, Bassoon 1 & 2, C Trumpets 1, 2, & 3, Trombone 3, Tuba, Glockenspiel, Xylophone, Harp, Piano, Violin I, Violin II, Viola, Violoncello, and Double Bass. The key signature is A major (three sharps). The tempo is marked as ♩ = 60. The score features various dynamics including *mf*, *p*, *f*, and *mf*, as well as articulations like *pizz.* (pizzicato) and *div.* (divisi). Measure numbers 117, 119, and 121 are indicated above the staff. The score concludes with a *p* (piano) dynamic in the final measure.

Picc. (123) (125) (127) (129) (131)  
 Fl. 1,2 (1)  
 Ob. 1,2 1.  
 E. Hn.  
 B♭ Cl. 1,2,3 (1)  
 Bsn. 1,2 1.  
 C. Bn. 1.  
 Hn. 1,2  
 Hn. 3,4  
 C Tpt. 1,2,3  
 Tbn. 1,2,3  
 Tbn. 3  
 Tuba  
 Glk.  
 Xyl.  
 Perc. Bass drum  
 Hp. *sounds an octave higher*  
 Pno.  
 Vln. I  
 Vln. II *pizz.*  
 Vla.  
 Vc.  
 D.B.

Dynamics: *mf*, *ff*, *p*  
 Performance instructions: *lasciare vibrare*, *pizz.*, *arco*, *div.*, *unis.*

85

Picc. (133)  
 Fl. 1,2 (135)  
 Ob. 1,2 (137)  
 E. Hn. (139)  
 B $\flat$  Cl. 1  
 B $\flat$  Cl. 2,3  
 Bsn. 1,2  
 C. Bn.  
 Hn. 1,2  
 Hn. 3,4  
 C Tpt. 1,2,3  
 Tbn. 1  
 Tbn. 2,3  
 Tuba  
 Glk.  
 Perc. Tambourine  
 Perc. Bass drum  
 Vln. I  
 Vln. II  
 Vla.  
 Vc.  
 D.B.

Musical score for measures 133-139. The score includes parts for Piccolo, Flutes 1 and 2, Oboes 1 and 2, English Horn, B-flat Clarinets 1 and 2, Bassoon 1 and 2, Cor Anglais, Horns 1, 2, 3, and 4, Trumpets 1, 2, and 3, Trombones 1, 2, and 3, Tuba, Glockenspiel, Percussion (Tambourine, Bass drum, Tom-tom), Violins I and II, Viola, Violoncello, and Double Bass. The score features various dynamics (ff, f, mf, p) and articulations (accents, slurs, staccato, pizz., arco, unis.).

[illegible]

Picc. (147) (149) (151)  
 Fl. 1,2 *a2 ff*  
 Ob. 1,2 *ff*  
 E. Hn. *ff*  
 B♭ Cl. 1 *ff*  
 B♭ Cl. 2,3 *a2 ff*  
 Bsn. 1,2 *f*  
 C. Bn. *f*  
 Hn. 1,2 *a2 ff*  
 Hn. 3,4 *ff*  
 C Tpt. 1,2 *f*  
 C Tpt. 3 *f*  
 Tbn. 1 *f*  
 Tbn. 2,3 *f*  
 Tuba *f*  
 Glk.  
 Perc. Tambourine *f*  
 Pno.  
 Vln. I *pizz.*  
 Vln. II *pizz.*  
 Vla. *pizz.*  
 Vc. *unis. pizz.*  
 D.B. *pizz.*

Picc. (153)  
 Fl. 1,2 (155)  
 Ob. 1,2 (157)  
 E. Hn. (159)  
 B♭ Cl. 1  
 B♭ Cl. 2,3  
 Bsn. 1,2  
 C. Bn.  
 C Tpt. 1  
 C Tpt. 2  
 Tbn. 1  
 Tbn. 2  
 Tbn. 3  
 Tuba  
 Glk.  
 Perc. Tambourine  
 Pno.  
 Vln. I *arco div.*  
 Vln. II *8va*  
 Vla.  
 Vc.  
 D.B.

Musical score for page 39, measures 153-159. The score includes parts for Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, B♭ Clarinets 1 & 2, Bassoon 1 & 2, Cor Anglais, Trumpets 1 & 2, Trombones 1, 2, & 3, Tuba, Glockenspiel, Percussion (Tambourine), Piano, Violins I & II, Viola, Violoncello, and Double Bass. The key signature is three sharps (F#, C#, G#). The score features various dynamics (f, p, sf, fff, gliss.), articulations (accents, slurs), and performance instructions like 'arco div.' and '8va'.



This image shows a page from a musical score, likely for a symphony. The score is written for a large ensemble of instruments, including woodwinds, brass, percussion, and strings. The instruments listed on the left are: Picc., Fl. 1, 2, Ob. 1, 2, E. Hn., B♭ Cl. 1, 2, 3, Bsn. 1, 2, C. Bn., Hn. 1, 2, Hn. 3, 4, C Tpt. 1, 2, C Tpt. 3, Tbn. 1, Tbn. 2, Tbn. 3, Tuba, Glk., Perc., Vln. I, Vln. II, Vla., Vc., and D.B. The score is in 4/4 time, as indicated by the time signature. The key signature has two sharps (F# and C#). The music is written in a grand staff format, with multiple staves for each instrument. The score includes various musical notations, such as notes, rests, and dynamic markings. The dynamic marking 'ff' (fortissimo) is used frequently. The string section (Vln. I, Vln. II, Vla., Vc., D.B.) is marked 'arco' (arco) and 'pizz.' (pizzicato). The percussion section includes a Tom-tom and a snare drum. The woodwind section includes Piccolo, Flutes, Oboes, Horns, Clarinets, Bassoon, and Contrabassoon. The brass section includes Trumpets, Trombones, and Tuba. The score is a page from a larger work, as indicated by the page number '1' in the bottom right corner.

This image shows a page from a musical score, specifically measures 167 through 171. The score is written for a large ensemble, including woodwinds, brass, percussion, and strings. The key signature has three sharps (F#, C#, G#) and the time signature changes from 4/4 to 3/4 at measure 170. The orchestration includes Piccolo, Flute 1 &amp; 2, Oboe 1 &amp; 2, English Horn, B♭ Clarinet 1 &amp; 2, Bass Clarinet 3, Bassoon 1, Bassoon 2, Contrabassoon, Horn 1 &amp; 2, Horn 3 &amp; 4, Trumpet 1, 2, &amp; 3, Trombone 1, 2, &amp; 3, Tuba, Glockenspiel, Xylophone, Percussion (Bass drum, Suspended cymbal), Piano, Violin I, Violin II, Viola, Violoncello, and Double Bass. The score features various dynamics such as fortissimo (ff), mezzo-forte (mf), piano (p), and sforzando (sf). There are also performance instructions like 'arco' (bowed) and 'pizz.' (pizzicato). The notation includes complex rhythmic patterns, triplets, and slurs across multiple staves. Measure numbers 167, 169, and 171 are circled at the top of their respective columns.

Picc. (173) *fff*  
 Fl. 1 *pp* *ppp*  
 Fl. 2 *fff*  
 Ob. 1,2 *fff*  
 E. Hn. *fff*  
 B♭ Cl. 1 *fff*  
 B♭ Cl. 2,3 *fff*  
 Glk. *fff*  
 Pno. *fff*  
 Vln. I *pizz.* *fff*  
 Vln. II *arco* *pp* *ppp*  
 Vla. *div.* *fff*  
 Vc. *pizz.* *fff*  
 D.B. *arco* *ppp* *f* *ppp*

### III. Lights II

Luís Passos

Calm,  = 60

Calm, ♩ = 60

Flute 1  
Flute 2  
Flute 3  
Oboe 1  
Oboe 2  
Clarinet in B $\flat$  1  
Clarinet in B $\flat$  2  
Clarinet in B $\flat$  3  
Bassoon 1  
Bassoon 2  
Horn in F 1, 2  
Horn in F 3, 4  
Trumpet in C 1  
Trombone 1 & 2  
Harp  
Piano  
Violin I  
Viola  
Cello  
Double Bass

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Fl. 1 *ff* *p* *< mf* *f* *> p* *pp* *fp* *possibile* *f* *> p* *< f* *p*

Fl. 2 *p* *< mf* *f* *> p* *pp* *fp* *f* *> p* *< f* *p*

Fl. 3 *p* *< mf* *f* *> p* *pp* *fp* *f* *> p* *< f* *p*

Ob. 1 *ff* *p* *< mf* *f* *> p* *pp* *3 p* *fp* *f* *> p* *< f* *p*

Ob. 2 *ff* *mf* *f* *> p* *pp* *p* *fp* *f* *> p* *< f* *p*

E. Hn. *p* *< mf* *f* *> p* *pp* *p* *fp* *f* *> p* *< f* *p*

Bs. Cl. 1 *ff* *p* *< mf* *f* *> p* *3 p* *fp* *f* *> p* *< f* *p*

Bs. Cl. 2 *p* *< mf* *f* *> p* *p* *fp* *f* *> p* *< f* *p*

Bs. Cl. 3 *p* *< mf* *f* *> p* *p* *fp* *f* *> p* *< f* *p*

Bsn. 1 *p* *f* *> p* *3 p* *p*

Bsn. 2 *p* *f* *> p* *p*

C. Bn. *f*

Hn. 1 *senza sord.* *mp* *mf* *fp*

Hn. 2 *p* *pp* *p* *pp* *fp* *< f* *> p* *fp* *>*

Hn. 3 *p* *mf* *p* *pp* *fp* *< f* *> p* *fp* *>*

Hn. 4 *p* *mf* *p* *pp* *fp* *< f* *> p* *p* *>*

C Tpt. 1 *con sord.* *p* *pp* *p* *p*

C Tpt. 2 *con sord.* *p* *pp* *p* *p*

C Tpt. 3 *con sord. (for the entire movement)* *3 p* *pp* *p* *p*

Tbn. 1 *p* *pp* *p* *f*

Tbn. 2 *p* *pp* *p* *f*

Glk. *ff*

Hp. *ff*

Pno. *mp* *p* *ff*

Vln. 1 *div.* *p* *f* *ff*

Vln. 2 *div.* *p* *f* *ff*

Vla. *pizz.* *arco* *ff* *p* *f* *> p* *div.* *sf* *p* *f* *ff*

Vc. *pizz.* *arco* *ff* *p* *f* *> p* *sf p* *arco* *f* *ff*

D.B. *ff* *p* *f* *ff*

15 17 19 21

Fl. 1 *f* *pp* *p* *mf* *pp*

Fl. 2 *>pp* *p* *mf* *pp*

Fl. 3 *>pp*

Ob. 1 *pp*

Ob. 2 *pp*

E. Hn. *pp*

B♭ Cl. 1 *f* *pp* *p* *mf* *pp*

B♭ Cl. 2 *pp* *p* *mf* *pp*

B♭ Cl. 3 *pp*

Bsn. 1 & 2 *pp* *a2* *mf* *con sord.* 1 & 2 3

Hn. 1 *mp* *mf* *f* *p* *mf* 3

Hn. 2 & 3 *pp* *pp* *mf* 3 & 4 3

C Tpt. 1, 2, 3 *pp* 1. *f*

Tbn. 1, 2 *mp* *mf* 3 3 3 3

Tbn. 3 *con sord. (for the entire movement)* *mp*

Vln. 1 *unis.* *f* *ff* *mf* *mp*

Vln. 2 *f* *ff* *mf* *mp*

Vla. *unis.* *f* *ff* *mf* *mp*

Vc. *pizz.* *mf* *arco* *f* *ff* *mf* *div.* *unis.* *mp*

D.B. *pizz.* *mf* *ff* *mf*

96

31 33 35  $\text{♩} = 56$

Fl. 1, 2  
3 *mf* *mf* *f* *mf* *ff*

Ob. 1 *mf* *f* *mf* *ff* *p*

Ob. 2 *fp* *f* *mp* *mf* *ff*

E. Hn. *fp* *f* *mp* *fp* *f* *mp* *ff*

B♭ Cl. 1, 2 *mf* *f* *p* *fp* *f* *mf* *ff*

B♭ Cl. 3 *fp* *f* *fp* *f* *p* *mf* *ff*

Bsn. 1 *fp* *f* *fp* *f* *p* *p* *ff*

C. Bn. *p* *ff*

Hn. 1, 2 *fp* *f* *p* *fp* *f* *p* *ff*

Hn. 3, 4 *fp* *f* *p* *fp* *f* *p* *ff*

C Tpt. 1 *p* *mf* *f* *senza sord.* *mf* *ff*

C Tpt. 2 *mf* *ff*

C Tpt. 3 *p* *ff*

Tbn. 1 *mp* *fp* *f* *mf* *p* *ff*

Tbn. 2 *mp* *fp* *f* *p* *ff*

Tbn. 3 *mp* *fp* *f* *p* *ff*

Glk. *mp* *basso*

Hp. *mp* *basso*

Pno. *mp* *basso*

Vln. 1 *mf* *mp* *f* *mp* *mf* *f* *p* *p* *ff* *pp*

Vln. 2 *mf* *fp* *f* *mp* *p* *ff* *pp* *senza vib.*

Vla. *fp* *fp* *ff* *pp* *senza vib.*

Vc. *fp* *f* *mp* *fp* *ff* *pp* *senza vib.*

D.B. *mp* *ff*



37 39 41 43 45

Fl. 1 *pp* *p* *mp*

Fl. 2, 3 *mp* *a2* 1.

Ob. 1 *mp* *mp*

Ob. 2 *mp*

B♭ Cl. 1 *mp*

B♭ Cl. 2 *mp*

Bsn. 1 *mf* *f* *mf* *p*

Bsn. 2 *mf*

Hn. 1, 2 *mp* *p*

Pno. *mp*

Vln. 1 *ppp* *pp* *pp*

Vln. 2 *ord.* *pp* *pp*

Vla. *pp* *ord.* *p*

Vc. *ppp* *pp* *p*

D.B. *pizz.* *p* *p*

*rall.* ..... *a tempo*

47 49 51 53 55

Fl. 1 *pp* *ppp* *p*

Fl. 2 *p* *p*

Ob. 1 *p* *mp* *pp* *mp* *mp*

B♭ Cl. 1 *mp* *mp*

B♭ Cl. 2 *p*

Bsn. 1 *mp* *pp* *ppp* *mf*

Bsn. 2 *p*

Hn. 1, 2 *mp* 1. *mp*

C Tpt. 1 *mp*

Tbn. 2,3 *p* *pp* *p* 3. *mp*

Vln. 1 *pp* *div.*

Vln. 2 *pp* *div.*

Vla. *pp* *div.*

Vc. *pp* *ppp* *p*

D.B. *mp* *mp* *pizz.*

57 59  $\text{♩} = 69$

Fl. 1 *mp* *f p f p f* *p f p f*

Fl. 2, 3 *mp* *f p f p f* *p f p f*

Ob. 1

B♭ Cl. 1, 2, 3 *f p f p* *f p*

Bsn. 1, 2 *mp* *f p f* *p f p*

Tbn. 1 *mf*

Pno. *mp*

Vc. *pizz.*

D.B.

61 63

Fl. 1, 2, 3 *p f p f p* *f p f p* *f p f*

B♭ Cl. 1, 2, 3 *f p f p f* *p f p f* *f p f p*

Bsn. 1, 2 *f p* *f p* *f p*

C Tpt. 1 *f fp < f > mp* *f*

Tbn. 1 *p mf* *mf f* *fp f*

Glk. *f*

Hp. *f*

Vc. *unis. pizz.*

D.B. *f*

Fl. 1, 2 *p* *f* *f cantabile* *p* *p* *mf*

Fl. 3 *p* *f* *p* *p* *mf*

Ob. 1, 2 *p* *f* *p* *p* *mf*

E. Hn. *f* *p* *mf*

B♭ Cl. 1 *p* *f* *p* *f* *mf*

B♭ Cl. 2 *p* *f* *f* *f* *mf*

B♭ Cl. 3 *p* *f* *p* *f* *mf*

Bsn. 1, 2 *p* *f* *mf* *a2*

C. Bn. *mf*

Hn. 1 *senza sord.* *f* *p*

Hn. 2 *senza sord.* *f* *mp* *p*

Hn. 3, 4 *senza sord.* *f* *mp* *p*

C Tpt. 1 *fp* *f* *con sord. (until the end of the mov.)* *p* *mf*

C Tpt. 2 *p* *mf*

C Tpt. 3 *p* *mf*

Tbn. 1, 2 *mf* *p* *mf*

Tbn. 3 *p* *mf*

Glk. *f* *13*

Hp. *f* *f* *13*

Pno. *ff* *8va*

Vln. 1 *pizz.* *f* *pp* *f* *fmp*

Vln. 2 *pizz.* *f* *pp* *f* *fmp*

Vla. *pizz.* *f* *pp* *f* *f*

Vc. *div.* *f* *pp* *f* *f*

D.B. *f* *pp* *f* *f*

102

75 77 79

Fl. 1, 2  
3

Ob. 1  
*mp*

B♭ Cl. 1, 2  
3

Hn. 1, 2  
*p* *mf* 1. (senza sord.)

Glk.

Hp.  
*p* *mp*

Pno.  
*mf* *p*

Vln. 1  
*p*

Vln. 2  
*p* arco

Vla.  
*pizz.* *mp*

Vc.  
*arco* *mf*

D.B.  
*pizz.* *mp*

**♩ = 63**

*poco rall.* ----- *a tempo*

♩ = 63

Fl. 1, 2

Ob. 1, 2

E. Hn.

B♭ Cl. 1, 2

B♭ Cl. 3

Bsn. 1

Bsn. 2

C. Bn.

Hn. 1

Hn. 2

Hn. 3

Hn. 4

C Tpt. 1

C Tpt. 2

C Tpt. 3

Tbn. 1

Tbn. 2

Tbn. 3

Vln. 1

Vln. 2

Vla.

Vc.

D.B.

*con sord.*

*senza sord.*

*arco*

*div.*

*unis.*

*arco*

*fmp*

*mp*

*mf*

*f*

*pp*

*div.*

*unis.*

*arco*

105



Fl. 1, 2 *f*

Fl. 3 *f*

Ob. 1, 2 *a2* *f* *mf* *ff*

E. Hn. *fp* *f* *mf* *ff*

B♭ Cl. 1, 2 *fp* *f* *mf* *ff*

B♭ Cl. 3 *fp* *f* *mf* *ff*

Bsn. 1 *fp* *f* *mp* *ff*

Bsn. 2 *fp* *f* *mp* *ff*

C. Bn. *mp* *ff*

Hn. 1, 2 1. *f* *mf* *f* 2. senza sord. *fmp* *fmp* *ff*

Hn. 3, 4 *f* *fmp* *fmp* *ff*

C Tpt. 1 *f* *mf* *f* *mf* *ff* *f* *mp*

C Tpt. 2 *mp* *ff* *f* *mp*

C Tpt. 3 *mp* *ff* *f* *mp*

Tbn. 1 *fp* *f* *mp* *ff* *f* *mp*

Tbn. 3 *fp* *f* *mp* *ff*

Perc. *Sus. Cym* *pp* *ff* *damp*

Vln. 1 *f* *fp* *f* *fmp* *ff* *div.*

Vln. 2 *mf* *f* *fp* *f* *fmp* *ff* *div.*

Vla. *fp* *f* *fmp* *ff* *div.*

Vc. *mf* *f* *fp* *f* *fmp* *ff* *div.*

D.B. *fp* *f* *fmp* *ff*

103 105 107 109

*poco rall.*

Fl. 1, 2 *mp* *mp*

Fl. 3 *mp*

E. Hn. *mp*

B♭ Cl. 1, 2 *mp* *mp* *mf* *mp* *mp* *mf* *mp* *mf* *mp* *mf* *mp*

B♭ Cl. 3 *mp*

Bsn. 1, 2 *mp* *mf* *mf* *mf*

Glk. *mf* *mf* *mf*

Hp. *mf* *mf* *mf*

Pno. *mf* *mf* *mf*

Vln. 1 *mp* *pp* *p* *pp* *pp* *p* *pp* *pp* *p* *pp*

Vln. 2 *mp* *pp* *p* *pp* *pp* *p* *pp* *pp* *p* *pp*

Vla. *mp* *pp* *p* *pp* *pp* *p* *pp* *pp* *p* *pp*

Vc. *mp* *pp* *p* *pp* *pp* *p* *pp* *pp* *p* *pp*

## IV. Convergences II

Luís Passos

Allegro, ♩ = 260

③

©

This page of a musical score is for a symphony, featuring a variety of instruments. The instruments listed on the left are: Piccolo, Fl. 1, 2, Ob. 1, 2, English Horn, B♭ Cl. 1, 2, Clarinet in B♭ 3, Bsn. 1, 2, Horn in F 1, 2, Horn in F 3, 4, C Tpt. 1, 2, Glockenspiel, Piano, Violin 1, Violin 2, Viola, Cello, and Double Bass. The score is written in 8/8 time. The key signature has one sharp (F#). The score includes various musical notations such as notes, rests, and dynamic markings (f, mf, p). The Piano part is written for grand piano (88 keys). The Violin 1 and Violin 2 parts are written for standard violins. The Viola part is written for viola. The Cello and Double Bass parts are written for cello and double bass. The score is a page from a larger musical work, as indicated by the page number 100 at the bottom right.

7 9 11 13

Picc. *mf*

Fl. 1, 2 *mf* *a2*

Ob. 1, 2 *mf* *a2*

B♭ Cl. 1, 2 *f*

Bsn. 1, 2 *mf* *f* *a2*

C. Bn. *f*

Hn. 1, 2 *f* *a2*

Hn. 3, 4 *f* *a2*

C Tpt. 1, 2 *f*

Tbn. 2 *f* *sf* *sf* *sf* *sf* *sf* *f*

Tbn. 3 *f* *sf* *sf* *sf* *sf* *sf* *f*

Tuba *f* *sf* *sf* *sf* *sf* *sf* *f*

Vln. 1 *pizz.* *mf*

Vln. 2 *pizz.* *mf*

Vla. *pizz.* *mf* *arco* *f*

Vc. *pizz.* *mf* *arco* *f*

D.B. *mf* *pizz.* *sf* *sf* *sf* *sf* *sf* *f*

15 17 19 21 23

Picc. *f* *ff* *f* *ff* *mf* *a2*

Fl. 1, 2 *f* *ff* *f* *ff* *mf* *a2*

Ob. 1, 2 *f* *ff* *f* *ff* *mf* *a2*

B♭ Cl. 1, 2 *f* *ff* *f* *ff* *mf* *a2*

Bsn. 1, 2 *mf*

Hn. 1, 2 *f* *ff* *f* *ff* *mf*

Hn. 3, 4 *f* *ff* *f* *ff* *mf*

C Tpt. 1, 2 *f* *ff* *f* *ff* *mf*

Tbn. 2 *f* *ff* *f* *ff* *mf*

Tbn. 3 *f* *ff* *f* *ff* *mf*

Tuba *f* *ff* *f* *ff* *mf*

Vln. 1 *mf* *pizz. secco*

Vln. 2 *mf* *pizz. secco*

Vla. *mf* *pizz. secco*

Vc. *mf* *pizz. secco*

D.B. *pizz.* *sf* *sf* *sf* *sf* *sf* *mf* *pizz. secco*

25 27 29 31

Picc. *f*

Fl. 1, 2 *f* a2 *ff*

Ob. 1, 2 *f* a2 *mp* *ff*

E. Hn. *f* *ff*

B♭ Cl. 1, 2 *f* a2 *ff* *mp* a3 *mp*

B♭ Cl. 3 *f* *ff* *mp*

Bsn. 1, 2 *f* a2 *mp* *mp*

C. Bn. *f*

Hn. 1, 2 *mp* a2 *p* *f* *fp* *f*

Hn. 3, 4 *mp* *f*

C Tpt. 1, 2 *f* *f*

Tbn. 1, 2 *f* *con sord.* *mp* *mp* *mp*

Tbn. 3 *f*

Tuba *f*

Vln. 1 *f* *arco* *mp* *ff* *mp* *pizz.* *arco*

Vln. 2 *f* *arco* *mp* *ff* *mp* *pizz.* *arco*

Vla. *f* *arco* *mp* *ff* *mp* *pizz.* *arco*

Vc. *f* *arco* *mp* *ff* *mp* *pizz.* *arco*

D.B. *f* *mp* *ff* *mp*

Picc. *ff* *mp*

Fl. 1, 2 *a2* *ff* *fp* *mf* *fp* *mf*

Ob. 1, 2 *a2* *mf* *ff* *mp* *mp*

E. Hn. *a3* *mf* *ff*

B♭ Cl. 1, 2, 3 *mf* *ff* *mp* *f* *mp*

Bsn. 1, 2 *a2* *mf* *ff* *mp* *f* *mp*

C. Bn. *mf* *ff* *mp* *f*

Hn. 1, 2 *p* *fp* *mf* *fp* *mf*

Hn. 3, 4 *f*

C Tpt. 1, 2 *f* *mp* *3*

C Tpt. 3 *p*

Tbn. 1, 2 *mp* *3*

Tbn. 3 *f* *mp* *mp*

Tuba *f* *mp* *mp* *mp* *mf*

Pno. *mf* *mp* *mp*

Vln. 1 *ff* *mp* *mp* *mp*

Vln. 2 *ff* *mp* *mp* *mp*

Vla. *ff* *mp* *mp* *mp* *V*

Vc. *ff* *mp* *mp* *mp* *V*

D.B. *ff* *mp* *mp* *mp* *V*

Picc. *f* *a2* *p*  
 Fl. 1, 2 *f* *mf* *mp* *f*  
 Ob. 1, 2 *f* *p*  
 E. Hn. *f* *a3*  
 B♭ Cl. 1, 2, 3 *f* *a2* *mp* *mp*  
 Bsn. 1, 2 *f* *p*  
 C. Bn. *f* *a2*  
 Hn. 1, 2 *f* *p*  
 C Tpt. 1 *f* *p*  
 C Tpt. 3 *f* *p*  
 Tbn. 1, 2 *senza sord.* *f* *p*  
 Tbn. 3 *f* *p*  
 Tuba *f* *p*  
 Pno. *ff*  
 Vln. 1 *div.* *f* *p*  
 Vln. 2 *f* *p*  
 Vla. *f* *p*  
 Vc. *f* *pizz.*  
 D.B. *f*



49 51 53 55

Picc.

Fl. 1, 2

mp  $\leftarrow$  f

mp

Ob. 1, 2

f

B $\flat$  Cl. 1

B $\flat$  Cl. 2

Hn. 1, 2

a2

C Tpt. 1, 2

3

con sord.

f

Tbn. 1

f

Tbn. 3

f

Tuba

f

Pno.

pizz.

D.B.

f

115

65 67 69 71

Picc. *f* *a2*

Fl. 1, 2 *f* *a2*

Ob. 1, 2 *mp* *f* *mp* *f*

E. Hn. *f* *a2*

B♭ Cl. 1, 2 *f*

B♭ Cl. 3 *f*

Bsn. 1, 2 *mp* *1.*

C. Bn. *p*

Hn. 1, 2 *p* *f* *p* *con sord.*

C Tpt. 1, 2 *mp*

Vln. 1 *mf* *div.*

Vln. 2 *mf* *div.*

Vla. *mf* *arco* *mf* *pizz.*

Vc. *mf* *mf*

D.B. *mf* *pizz.*

*unis.*

117

81 83 85 87

Picc.

Fl. 1, 2

Ob. 1, 2

B♭ Cl. 1

B♭ Cl. 2, 3

Hn. 3, 4

C Tpt. 1

C Tpt. 2

Tbn. 1

Tbn. 2

Tbn. 3

Vln. 1

Vln. 2

Vla.

Vc.

D.B.

*mf*  
*div.*

*mf*

*mf*  
*pizz.*

*mf*  
*pizz.*

*mf*

89 91 93 95

Picc. *mf* *f*

Fl. 1, 2 *mf* *f*

Ob. 1, 2 *mf* *f*

E. Hn. *mf* *f*

B♭ Cl. 1, 2 *mf* *f*

B♭ Cl. 3 *mf* *f*

Bsn. 1, 2 *f* *ff* *f*

C. Bn. *ff*

Hn. 1, 2 *mf* *f* *f*

Hn. 3, 4 *mf* *f* *f*

C Tpt. 1 *f* *ff* *f*

C Tpt. 2 *f* *ff*

Tbn. 1, 2 *f* *ff*

Tbn. 3 *ff*

Tuba *ff*

Glk. *f*

Pno. *f*

Vln. 1 *mf* *f* *ff* *f*

Vln. 2 *mf* *f* *ff* *f*

Vla. *mf* *f* *ff* *f*

Vc. *mf* *f* *ff* *f*

D.B. *f* *ff* *f*

*unis.* *div.* *unis.* *div.*

*arco* *arco*

119

97

99

101

Picc.  
 Fl. 1, 2  
 Ob. 1, 2  
 E. Hn.  
 B♭ Cl. 1, 2  
 B♭ Cl. 3  
 Bsn. 1, 2  
 Hn. 1, 2  
 Hn. 3, 4  
 C Tpt. 1, 2  
 Glk.  
 Pno.  
 Vln. 1  
 Vln. 2  
 Vla.  
 Vc.  
 D.B.

Musical score for measures 97-101. The score includes parts for Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, B-flat Clarinets 1, 2, and 3, Bassoon 1 & 2, Horns 1, 2, 3, and 4, Trumpets 1 & 2, Glockenspiel, Piano, Violins 1 & 2, Viola, Violoncello, and Double Bass. The key signature has one sharp (F#) and the time signature is 3/4. The score shows various musical notations including notes, rests, dynamics (mf, p, f, mp), and articulation (pizz.).

Free, improvising,  $\text{♩} = 80$

Ob. 1

Pno.

103 105 107

1.

*mf*

3

*mf*

*p*

109 111 113

3

*p*

*mf*

Detailed description: The musical score is for two staves: Ob. 1 (top) and Pno. (bottom). The time signature is 3/4. The tempo is marked as 'Free, improvising, ♩ = 80'. The key signature has two flats (Bb and Eb). The score spans from measure 103 to 113. Measure 103: Ob. 1 has a whole rest; Pno. has a whole note chord (Bb3, Eb4, Gb4). Measure 104: Ob. 1 has a whole rest; Pno. has a whole note chord (Bb3, Eb4, Gb4). Measure 105: Ob. 1 has a quarter note Bb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 106: Ob. 1 has a quarter note Eb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 107: Ob. 1 has a quarter note Gb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 108: Ob. 1 has a quarter note Bb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 109: Ob. 1 has a quarter note Bb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 110: Ob. 1 has a quarter note Eb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 111: Ob. 1 has a quarter note Gb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 112: Ob. 1 has a quarter note Bb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Measure 113: Ob. 1 has a quarter note Bb4 with a trill; Pno. has a half note chord (Bb3, Eb4). Dynamics: *mf* is marked in measures 105, 109, and 111. *p* is marked in measures 107 and 113. A first ending bracket is shown above measure 105.



## References

- Berg, Alban. *Letters to his Wife*. Edited by Bernard Grun. London: Faber and Faber, 1971.
- Dictionary. "Nostalgia." *Dictionary.com*. Available from <  
<http://dictionary.reference.com/browse/nostalgia>>; Internet; accessed 23 February 2011.
- Fineberg, Joshua. "Guide to the Basic Concepts and Techniques of Spectral Music," *Contemporary Music Review* 19, no. 2 (2000): 81-113.
- Gauldin, Robert. "Reference and Association in the Vier Lieder, Op. 2, of Alban Berg," *Music Theory Spectrum* 21, (Spring, 1999): 32-42.
- Griffiths, Paul. "Concerto." *Grove music online*. Available from  
<[http://www.oxfordmusiconline.com.ezproxy.lib.utexas.edu/subscriber/article/grove/music/40737?q=concerto&search=quick&pos=1&\\_start=1#firsthit](http://www.oxfordmusiconline.com.ezproxy.lib.utexas.edu/subscriber/article/grove/music/40737?q=concerto&search=quick&pos=1&_start=1#firsthit)>; Internet; accessed 21 February 2011.
- Häusler, Josef. "Zwei Interviews mit György Ligeti." Trans. Sarah E. Soulsby in *Ligeti in Conversation*. London: Eulenberg, 1983.
- Karwath, André. "Bellis perennis," Wikipedia. Available from <  
[http://en.wikipedia.org/wiki/File:Bellis\\_perennis\\_white\\_%28aka%29.jpg](http://en.wikipedia.org/wiki/File:Bellis_perennis_white_%28aka%29.jpg)>; Internet; accessed 21 March 2011.
- Ligeti, György. *Concerto for Piano and Orchestra*. Mainz: Schott, 1986.
- Ligeti, György. *Doppelkonzert*. Mainz: Edition Shott, 1972.
- Ligeti, György. "Vertige" in *Études pour piano, deuxième livre*. Mainz: Schott, 1998.
- Ligeti, György. "States, Events and Transformations," *Perspectives of New Music* 31, no.1 (1993): 164- 171.
- Mellers, Wilfrid. "Symphony of Psalms," *Tempo*. 97 (1971): 19-27.
- Messiaen, Olivier. "Messiaen on Debussy and color," *Youtube*. Available from. <  
<http://www.youtube.com/watch?v=GSWatsiBErU&feature=related>>; Internet; accessed 20 February 2011.
- Schoenberg, Arnold. *Style and Idea*. Edited by Leonard Stein, trans. Leo Black. New York: St Martin's Press, 1975.

## **Vita**

Luís Otávio Teixeira Passos was born in Belo Horizonte, Minas Gerais, Brazil in 1980. In 1999, he entered the Universidade Federal de Minas Gerais, and received a Bachelor's degree in Music Composition in 2005. He was a student of Gilberto Carvalho. That same year, he was admitted to the Universidade Federal do Rio Grande do Sul, and received the degree of Masters in Music in 2007. He studied with Celso Loureiro Chaves. In 2007, he was awarded a Fulbright and Capes scholarship and entered the University of Texas at Austin. At this university he studied with Yevgeniy Sharlat, Russell Pinkston and Donald Grantham.

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